

Exploring the Illusion of Free Will, Second Edition

Exploring the Illusion of Free Will

SECOND EDITION

George Ortega

A Happier World
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For the young, and for future generations who have inherited a world of unprecedented challenge and opportunity. May your understanding and acceptance that free will is an illusion help you navigate all you will face not from divisive blame and misguided denial, but from a more evolved spirit of cooperation grounded in unflinching truth.

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Introduction to the 2011 Edition (revised)

For we who appreciate speedily arriving at the heart of a matter, here's how to disprove *any* free will argument in two easy steps: 1. Ask the free will believer to give an example of a choice they consider to be freely willed. 2. Ask the free will believer to say whether or not that choice was caused. Congratulations; you've just won! If the free will believer says the choice was caused, the ensuing causal regression makes free will impossible. If the free will believer says the choice was uncaused, the choice cannot rationally be attributed to a human will. You can easily apply this two-step refutation to any, *and all*, free will arguments. That's the long and short of it; now for the details.

When asked by British psychologist Susan Blackmore to comment on the prospect that free will is an illusion, American philosopher John Searle exclaimed, "That would be a bigger revolution in our thinking than Einstein, or Copernicus, or Newton, or Galileo, or Darwin. It would alter our whole conception of our relation with the universe." What do top philosophers conclude? In his 1943 book *Physics and Philosophy*, British physicist, astronomer and mathematician Sir James Jeans writes,

Practically all modern philosophers of the first rank – Descartes, Spinoza, Leibniz, Locke, Hume, Kant, Hegel, Mill, Alexander, as well as many others – have been determinists in the sense of admitting the cogency of the arguments for determinism, but many have at the same time been indeterminists in the sense of hoping to find a loophole of escape from these arguments. Often they conceded that our apparent freedom is an illusion, so that the only loophole

they could hope to find would be an explanation as to how the illusion could originate.

Presented here are the edited transcripts of the first 18 half-hour episodes (Note: episode two has been omitted from the Second Edition) of the world's first television series and dedicated dissemination initiative on the causal and unconscious nature of human will, *Exploring the Illusion of Free Will*. What follows is also a powerful tool by which you, the reader, can move from clearly understanding the causal nature of our human will to integrating this evolutionary new causal consciousness into your worldview, and, to the extent you succeed, substantially overcome the personal attributes of blame, arrogance, guilt and envy that inevitably result from a free will-based consciousness. Following the format of the television episodes, at the beginning of most chapters, I review what we mean by the term free will, why such a will is impossible, and how correcting our mistaken conclusion that we have one can help us create a happier, more intelligent and compassionate world. Throughout the book, I also reiterate key themes and concepts. Because many of us are just vaguely familiar with such concepts as free will, choice, causality, randomness, indeterminism, etc., re-describing them within different contexts can help the reader more fully understand their meaning and implications. This review is similar to the constant repetition and review necessary when learning mathematics or a new language. For many, in fact, this repetition will likely prove not just helpful, but quite necessary. Repeating key points and facts also facilitates a more thorough understanding of the book's main themes, and helps the reader overcome the cognitive dissonance, or emotional discomfort, that arises when one's strongly held beliefs are challenged by evidence and arguments one hadn't previously considered, or sufficiently appreciated.

Introduction to the 2013 Second Edition

The year following the release of the first edition of *Exploring the Illusion of Free Will* on December 2, 1011 saw an explosion of coverage on the illusion of free will both in the mainstream press and in the Internet blogosphere. During this time, *The New York Times*, *USA Today*, *The Atlantic* and other major newspapers and magazines published often first-ever pieces refuting free will. *Scientific American Mind*, in fact, featured a cover story on the free will illusion in their May/June, 2012 print issue. I have compiled a virtually complete list of that coverage, and included it in the epilogue. I have also included a listing of books throughout history, both in and out of print, devoted to refuting the notion of free will. In this second edition introduction, I have additionally outlined a brief history of some of the major causes and landmarks in this unprecedented public awakening to, and interest in, the question of whether or not we have a free will.

Along with this new interest among the public regarding who we humans truly are and what causes us to do what we do has come substantial misconception about the term free will. In this introduction, I clarify some of this confusion so that we can arrive at a clear and specific understanding of what the vast majority of philosophers and social scientists mean when they say that free will is an illusion. The term *free will* is generally taken to mean that we human beings are free to think, feel, say and do whatever we want *regardless of*:

To whom we were born, and how they raised us
Where we were born, and where grew up
What we learned, or didn't learn, in school and from life in

general

How young or old we are

How smart or not we are

What experiences we've had, or haven't had

What type of personality we have

What our genetic makeup is, including whether we were born male or female

What our unconscious mind happens to be doing

Our preferences, needs and desires

And various other factors

That's what the vast majority of philosophers and scientists mean when they refer to free will. The basic reason we humans do not have a free will is because of the principle of causality, which is better known as the law of cause and effect, and is also referred to as, or held to be synonymous with, the concept of determinism. Causality basically means that everything that happens is caused. Things don't just happen. The most general and comprehensive description of this principle is that the state of the universe at one moment is the complete cause of the state of the universe at the next moment and the complete effect of the state of the universe at the previous moment. From this, it follows that the ensuing chain of universal causality stretches back in time to before the Earth was created and reaches forward in time into the indefinite future. That's essentially the reason free will is an illusion. Through the process of cause and effect, the universe long before we were born has predetermined everything that happens in our universe today, including everything we think, feel, say and do. We can also understand why free will is impossible through other means.

In science there was once a debate over whether what we humans do is the result of nature or nurture. Scientists ultimately proved that human behavior results from both our genetic endowment *and* our environment. But, neither nature nor nurture, nor their combination, allows for a free will. If you are beginning to see why we human beings do not have a free will, this is a good place to consider two important caveats. Understanding that we do not have a free will does not give us permission to do whatever we

want, does not mean we must passively accept bad behavior from others, does not mean we must do away with our rules, governments, and principles of law, and *will not cause civilization to crumble*.

A brief history of determined vs. free will ideas

Cause and Effect – At about the 5th century BC, in his work *On the Mind*, the Greek Philosopher Leucippus penned the earliest known universal statement describing what we today understand as determinism, or the law of cause and effect: “Nothing happens at random, but everything for a reason and by necessity.”

Human Will – Paul, in his Letter to the Romans, which is dated at about 58 A.D., recognized that he could not often do as much good as he wanted. He wrote in Romans 7:15 that: “I don’t understand myself at all, for I really want to do what is right, but I can’t.” I do what I don’t want to – what I hate.” (Translation – The Living Bible)

Free Will – A few hundred years later, Augustine was grappling with the concepts of evil and justice, and wrote in his book *De Libero Arbitrio*, 386-395 A.D., (translated as “On Free Will”) that “Evil deeds are punished by the justice of God. They would not be punished justly if they had not been performed voluntarily.” The problem he saw was that if humans do not have a free will, it would be unfair for God to arbitrarily reward or punish us. Augustine concluded that God could not be unfair, and so he invoked the concept of a human free will, whereby we earn our reward or punishment by what we freely choose.

Classical Mechanics – In 1687 Sir Isaac Newton published his “Laws of Motions” that mathematically describes the physical universe as acting mechanistically according to the principle of cause and effect. Classical Mechanics is a completely deterministic theory.

Heisenberg Uncertainty Principle – In 1927 Werner Heisenberg described mathematically why we cannot simultaneously measure the position and momentum, and other conjugate variables, of a particle.

Copenhagen Interpretation of Quantum Mechanics – Niels Bohr and others asserted that elementary particles do not have a simultaneous position and momentum, and that they are not subject to the principle of cause and effect. Believers in free will saw the Heisenberg Uncertainty Principle and Copenhagen Interpretation of Quantum Mechanics as providing a possibility for free will to exist. They asserted that if elementary particles behave indeterministically, they are not subject to the principle of cause and effect that prohibits free will. But, as noted, it became apparent that indeterminism, or the idea that certain actions including human choices have no cause, prohibits free will perhaps even more strongly than does determinism.

Other Sciences, and Free Will – During the last several decades, the idea of free will has been repeatedly refuted by geneticists, neuroscientists, sociologists, and psychologists, who have devised various experiments to explain why we do not have a free will. In 1964, neuroscientist Hans Kornhuber discovered what has come to be known as “the readiness potential.” He used an electromyogram, or EMG, to measure the muscle activity of a person’s finger as it flexed, and an electroencephalogram, or EEG, to measure the person’s brain activity. He detected brain activity before the finger flexed, and called that activity the readiness potential. The readiness potential signals that muscle activity is absolutely and irrevocably set to occur.

In the 1980s, neurophysiologist Benjamin Libet used Kornhuber’s findings to explore the determined will vs. free will question. Like Kornhuber, he attached an EMG and EEG to his subjects. He instructed them to flex their wrist whenever they wished, and to tell him exactly when they made their decision. Libet found that the readiness potential occurred about 550 milliseconds before the wrist flexed. *But the subjects became aware of their*

decision to flex their wrist about 300 milliseconds before they flexed their wrist. This experiment showed that the subjects had unconsciously decided to flex their wrist 200 milliseconds before they were consciously aware of their decision. Since their decision was initiated at the level of the unconscious, flexing their wrist could not have been consciously, or freely, willed.

During the mid 90s, Yale psychologist John Bargh and his colleagues studied the effects of priming on our human will. Bargh assigned two groups of subjects the task of making sentences from scrambled words. The target group's words – gray, wrinkled, wise, Florida, and Bingo – were chosen to prime the stereotype of “elderly.” The control group was given neutral words. After finishing their task, the two groups were observed as they walked toward an elevator to leave the building. Bargh observed that the target group consistently walked to the elevator at a slower pace than did the control group. His experiment shows how our unconscious is responsible for behavior we ordinarily assume is under our conscious, or free, control. In a second experiment, Bargh and his colleagues primed his target groups for either rudeness or politeness. Again, Bargh assigned the scrambled word task to each group. The “Rudeness” group was assigned words like aggressively, bold, rude, annoyingly, interrupt and audaciously. The “Politeness” group was assigned words like respect, honor, considerate, appreciate and patiently. After completing the sentence task, the subjects from each group were instructed to notify one of Bargh's colleagues that they were done. Bargh, however, instructed his colleague to remain busy in conversation for ten minutes, so that the subjects would either have to wait a long while or interrupt the conversation.

As it turned out, before the ten minutes had elapsed 67 percent of the subjects primed for rudeness interrupted Bargh's colleague, while only 6 percent of the subjects primed for politeness interrupted. Also, very interestingly, when Bargh asked his subjects why they interrupted or chose to patiently wait, they offered creative answers, but none showed any awareness of the unconscious priming that had compelled their choices. These are just a few of the dozens of scientific experiments from various scientific disciplines that reveal that decisions we ordinarily attribute to a “free” will are actually caused by factors completely outside of our control.

Why all of this matters – Let's look at two individuals, Grace and John. Grace learned from everyone she ever knew that voting is the right and moral thing to do. John learned from everyone he ever knew that voting is wrong and immoral. Grace always votes. John never votes. Should we consider Grace praiseworthy for always voting? Should we blame John for never voting? Should Grace feel proud of always voting, and should John feel ashamed or guilty of never voting?

We can explore this notion of fundamental accountability through another example. Ten big guys walk into a room, take hold of a person, force him to grasp a magic marker, and despite his resistance, make him scribble FREEBIRD in large letters on the floor in front of him. Would it be right to hold him accountable for this action? Basically all of our choices are as completely forced or compelled as were the person's in this example. On an individual level, the belief in free will leads to irrational blame, guilt, arrogance, and envy. It causes blame at the expense of understanding and problem solving. It causes guilt rather than acceptance. It causes arrogance rather than gratitude. It causes us to envy others at the expense of positive self-regard.

On a societal level, the belief in free will leads to irrational condemnation, punishment and indifference. The U.S. accounts for about 5 percent of the global population, but is responsible for 25 percent of incarcerations throughout the world. During the last hundred years, our criminal justice system has moved from reform (as in reformatory and penitentiary) to condemnation, revenge, retribution and hateful punishment. Regrettably, no prisoner has ever truly had a choice but to do what they did. While we must certainly protect ourselves from those who pose a threat to our safety and rights, to the extent we acknowledge the true causal nature of our human will, we would do so with far more understanding and compassion. Also, we would better appreciate the value of reaching potential criminals when they are still young, thereby lessening the likelihood that they will resort to crimes as adults. In our world, every day over 20,000 children aged five and under die of largely preventable poverty-related causes. Sadly, many of us from rich countries justify our indifference toward them by blaming their

parents for, of their own free will, having them, or for, of their own free will, not working hard enough to feed and care for them.

How would transcending the illusion of free will create a better world?

We would see the world from a new, refreshingly different perspective.

It would represent a giant leap forward in the evolution of human consciousness.

We would navigate our reality according to the known facts of our universe.

It would enable us to be better people.

1. How I Came to See My Causal Will

Growing up, there are things that we want – things that we want to happen, ways we want to be, and things we want to do. There is much we would prefer to be a certain way, but we realize, "Wait a minute. I can't be the way I want to be. I can't do all the things I want to do." That's what happened to me growing up. There were many things I wanted to do, ways I wanted to be, and goals I wanted to meet. Yes, some I accomplished, but some I did not. It seemed that regardless of what I did or didn't do, it became evident that certain goals just were not going to happen. I began to understand that free will is an illusion, and that our lives and human will are causal.

Writing this book is not something that I had planned five or six years ago. So, what led me to it? It was a series of events, a series of situations. I had two friends years ago, Trish and Andy, and we did a cable TV show on spiritual and psychological issues called *Conversations in Mind*. It was great fun, and, after 30 episodes, I decided to do a TV show on happiness called *The Happiness Show*. I produced and hosted 138 half-hour episodes over three years, and gained invaluable experience in doing that kind of explanatory show. The key thing here is that the conditions that led up to this book, and everything else I'm doing now, were not really up to me. In other words, of the two friends with whom I did the first show, one I *happened* to meet at a nearby singles dance, and the other I *happened* to meet through other *unplanned* circumstances. These things that I didn't have control of shaped my reality, and led to my ultimately writing this book. In part and principle, that's how I came to understand free will to be an illusion.

Think about human will relative to the people you're close to, that you love and care about. I came to realize that we all want

our relationships and the rest of our lives to go as pleasantly and morally as possible. If we had a free will, our lives would go that way, at least in terms of what we say to each other, and how we feel about each other. If we had a free will, we would be completely good, and, not incidentally, completely happy. I came to realize that I can't behave the way I would like to with everyone that I would like. If I truly had a free will, I would be a perfect angel always. I would always know what to say. I would choose to feel only very positive feelings toward everyone and everything. That's one of the strongest understandings we gain from our personal lives that, no, we don't have free wills, and that free will is an illusion.

I'm describing to you how I came to this causal will understanding, but I want the explanation to relate to all of us because we all experience this reality. We're born into a world where the causal past is what makes things happen. It's all about cause and effect. What happens at one moment causes what happens at the next moment, which causes what happens at the next moment, and onward causally into the future. This causal chain naturally regresses back in time to before we were born, and is also what, very ironically and curiously, has led us to believe we have a free will. There are various illusions that nature has us perceive. For example, many years ago we were all quite convinced that the world was flat. It couldn't be round, or an orb like what we now know it is, because the people on the bottom would fall off! It seemed so very simple. Ultimately we learned that it is gravity that keeps us glued to this Earth, and the idea that our world is an orb made sense.

Mother Nature loves to play tricks on us. Another illusion is that our world is completely motionless. I don't feel anything moving. Everything seems completely still. But the reality is that we're hurtling around the Sun at over 60 thousand miles per hour. It goes beyond that because the Sun, the whole solar system, and the whole galaxy, are all traveling through our universe at great speed. The point is that, yes, there are illusions. Mother Nature does love to play tricks on us. Most of us are familiar with the mirage illusion. You're driving on a straight highway on a hot summer day. You look into the distance, and could swear there's water there. For some reason, the causal past – and you could describe the causal past within a religious context as God - has determined that the vast

majority of us believe that we are the masters of our fate, and that we can always do whatever we want, and say whatever we want. It's an irony that objective causal reality would compel us to see life through this lens of illusion, to have us believe we have a free will. This may not make complete sense to you now, but as we go through the chapters, you'll likely come to understand that free will is, in fact, an illusion – that it has to be an illusion. Over the years, not being able to be the kind of person I wanted to be, (I would, of course, see this in others also) and not being able to do what I wanted to do brought me to understand that we don't have a free will. It seems that the causal past, what really controls everything, is now determining that it's time for us all to understand this reality. Evidence is mounting that we're in a period – more like the beginning of an age – where all of humanity is coming to understand that free will is an illusion. This is a very, very powerful understanding, because it changes everything.

We're hard-wired, biologically, to seek pleasure and avoid pain. That's who we are; that's what we do. Other organisms share this with us. And there are other imperatives. Seeking pleasure and avoiding pain is a hedonic imperative. There's also a moral imperative. We always do what we consider right at the time. In hindsight, it may not always be right, but we are biologically compelled to do what we think is most right, and makes the most sense – what we think is the greater of two goods, or lesser of two evils. We're always trying to do things as well as possible, and to be as good as possible. This is actually related to the hedonic imperative, because when we're "good," we create happiness. Think about this. We can't but seek pleasure and avoid pain. When we're in a certain circumstance, and we're given a choice between two options – what to eat, what movie to see, what friends to be with, we're always going to choose the one that we believe will bring us the greatest pleasure. But, it's not just about us; it's about other people too. So, sometimes we seek the greatest good for the greatest number. We can't avoid that. We're programmed to always do what we think is going to bring us happiness.

Two friends of mine had a falling out. They're good friends, but they had not talked to each other for months. One of them tells me that the other is acting in a certain way, and doing such and such,

and that she can't take it anymore. I ask her, "Why does your friend act like this? What's causing her to act in ways that you find upsetting?" We have a back-and-forth dialogue, and I keep asking, "Why?" She might say, "Well, that's just the way she is." So I ask her, "Why is she that way?" After our series of questions and answers, my friend ultimately realizes that her friend acts as she does because her parents raised her in a certain way, because she was raised in a certain environment, and because she had a certain genetic predisposition. Our personalities are about 50 percent genetic, and if our genes aren't determining our personality, then it is being determined by our upbringing and environment. So, it's easy to see how if our parents raised us a certain way, and we were taught in certain schools, and we met certain people – if certain environmental influences molded who we are – we do not have a free will. Ultimately, my friend came to see that her friend had to be the way she was. She couldn't help it. It's all about the causal past. That's the reality, and it's not a pleasant reality for some people, because they conclude, "Aw gee, if we don't have a free will that means we're just robots, we're just puppets, we're just automatons." Well, yes, that's the reality. I've understood this for years. You get accustomed to it, and it can actually make our understanding and experience of reality more pleasant and wonderful.

Let's say you believe in God. I equate God with the universe. If God is everywhere and God is everything, then God is the universe. I ascribe to God more wisdom and understanding than I would to an individual. If you're not so comfortable with the reality of our wills being causal, that God is the only power on Earth, and that the causal past is determining everything today, perhaps you can appreciate that God would likely be wiser than we are. You may then want to conclude that it's probably better for all concerned that reality is causal, or God-willed. If our choices were up to us, we'd probably make fewer good choices. How else did I come to realize and discover that free will is an illusion? One way has been through basic education. I've read many books about psychology, and taken psychology courses, and one thing you learn in psychology is that we all have an unconscious. Freud popularized this fact, and we all understand it now. One important thing we know about the unconscious is that it is always awake. In other words, our consciousness will go to sleep, and we won't remember much of

what happened when we were asleep. But our unconscious, when we're both asleep and awake, is always working. It's always active, and influencing our reality.

There has been empirical evidence since the time of the discovery of hypnosis that a person's unconscious can control, or decide, one's thoughts even though one thinks one is making the choice. Through experiments with hypnosis, and now also in neuroscience, we've discovered that even though we think we're making choices, it is actually our unconscious that is making those choices. Your unconscious is your memory store – your store of feelings, of experiences, etc. That's where everything is stored, and you're unaware of all that is there because you can't be aware, at least in real time, of what is unconscious. This is how it made sense to me. If your unconscious never sleeps, and is a part of every decision you make, then that is a very clear way to understand that free will is an illusion. We can't control our unconscious. That's the point. Our unconscious, by definition and experience, is something we're not conscious of. It's operating behind the scenes. When we say that we have a free will, basically we're saying that everything we decide is up to us – that we can consciously decide what to do or not. But if our unconscious takes part in our every decision, and we don't know what the unconscious is doing, then the best we're left with is a consciousness-unconscious collaboration on every decision. If that's the case, and we can't control our unconscious, you can understand how our unconscious makes free will impossible.

We don't have a free will. We can't be as happy as we want to be. We can't be as good as we want to be. Five seconds from now, I have no idea what I am going to say. These thoughts I'm saying right now are just popping into my head. I have a basic understanding of what I want to do, but I purposely didn't over-prepare this show because I wanted to demonstrate how these thoughts are coming to my mind from who knows where. Naturally, what I say is a result of my having researched this topic, having thought about it deeply, having talked about it often and at length, and having finally come to very clearly and strongly understand that free will is an illusion. All these things are a part of what's causing me to say what I say, but from a moment-to-moment perspective, these thoughts are just coming to me. Thirty seconds from now, I

have no idea what I'll be saying. Thoughts just come to us, and that is another way of understanding why free will is an illusion.

I want to end with a very positive point. Giving up the illusion of free will doesn't actually make life worse, or less meaningful. It actually makes it better because when we give up the illusion of free will and other people do wrong, we don't blame them. We don't say, "Oh, you're a bad person. *You* did wrong." We understand that they were compelled to do wrong, and we become more understanding, and forgiving, and compassionate toward them. When we do wrong, we will not blame ourselves because our wills are as causal and compelled as anyone else's. So, we don't feel the pain of guilt. When others do something really great, we sometimes feel envious, but we wouldn't under a causal will perspective because we would know that whatever they did was not up to them; it was completely compelled by factors outside of their control. Our world is changing, and once humanity understands that we don't have a free will, everything will in many ways be profoundly new.

3. Morality within a Causal Will Perspective

Let's explore our causal will from the perspective of morality. If we don't have a personal free will, then it's not accurate to say that we have a personal morality. When we talk about morality, we're basically talking about right and wrong, and personal responsibility. We do what is good, and we expect God, or the universe, to reward us. If we do what is bad, we expect that the universe will punish us. That tends to be the way it generally works, but the salient point here is that it's not up to us whether we do right or wrong, good or bad.

Every moral decision that we make is based on our understanding of the morality of the issue. Take, for example, a young boy who is raised in a culture where stealing is, for some reason, done and promoted. The culture teaches stealing. This young boy is raised in this culture, and learns that stealing is not wrong; stealing is right. This young boy, when he becomes a man, steals. He considers himself to be right in doing so. Let's now consider another person, a young girl, who was raised in a different culture. She was taught by her culture that stealing is wrong, and grows up to not steal. Is the boy who becomes a man and steals to be blamed for his stealing, and is the girl who doesn't steal to be credited for not stealing? If we believe we have a free will, we'll say "yes." But to the extent we understand that we don't have a free will, we understand that the boy could not have morally done other than to steal because when he steals he thinks he's doing good. That's what he was taught. That's how he was conditioned. With the girl, it's the same thing. She was conditioned to think stealing is wrong, and she doesn't steal.

The rightness and wrongness of what we do is not up to us. It's up to how we were taught. If we're in a certain culture, we're going to believe that certain acts are right and certain acts are wrong. If we're in a completely different culture, we may believe that other acts are right, and other acts are wrong. But we don't get to choose what culture we are raised in. We don't get to choose what parents we have, what ethics they instill in us, what books we read in school relating to morality, etc. That is a good way to understand why we don't have a free will, and how this relates to our moral decisions. We're not truly morally accountable. We're puppets, or robots, or automatons, or whatever, and we do good and evil because we're either lucky in the first case or unlucky in the second. When we do good, then the proper response is to be and feel grateful. If we define good as that which creates happiness, that's the reason we would be feeling grateful. We're doing what is going to benefit us, and, ideally, benefit the world around us.

In our relationships with our best friends, our spouses, our parents, our brothers and sisters, all of the people around us, we essentially interact. What we say and do – our morality toward each other – is based on our understanding of morality and our understanding of whether our wills are free or causal. To the extent we fall for this illusion of free will – that we believe we are the captains of our fate, and can decide what we want – when someone does something wrong to us, we will tend to blame the person. We attribute moral accountability to the person, and say to ourselves “well, if the person did wrong, the person deserves to be punished.” That will often breed anger and judgment toward the person. More often than not, this blame hinders rather than helps our relationships. Now let's explore our interactions with the people around us as having been the result of our causal will, or the causal past.

Suddenly, that person who did wrong to us is no longer our enemy and adversary, *per se*. He is no longer someone we believe deserves some kind of punishment. When we understand that we don't have free will, and we have causal wills, and people do not behave as we believe they should, we might say to ourselves “it would have been nice if the causal universe, or God, would have compelled that person to act differently, but s/he didn't. You can't logically blame a robot – a human being without free will – for

doing what they were completely compelled to do. This perspective helps with our relationships. It helps us to be more understanding, compassionate, and forgiving, not just toward others, but also toward ourselves. We do wrong all of the time. That's almost the definition of being human – we make mistakes. We have high goals and aims, but we also have a part of our nature that causes us to do what is not in our best interest, or the best interest of others.

Let's look at this from the perspective of how we might treat a very young child – a two-year-old. When a two-year-old does something wrong, what do we do? Generally, we tend to be understanding toward the two-year-old. We say to ourselves “the two-year-old couldn't have done any better because the child doesn't know any better.” At two years old, a child does not have enough experience, or knowledge, or maturity, or information. Because the child doesn't have sufficient cognitive and emotional ability, we don't attribute free will to the two-year-old. We conclude that two-year-olds do not have a free will. They can't think and do whatever they want because they are limited by their degree of education and psychological development. What happens? Because we recognize that the two-year-old does not have a free will, we are compassionate toward him or her. We think to ourselves “hey, that two-year-old is not responsible for spilling that drink, or doing whatever s/he may have done that we may consider wrong. And, we're therefore much kinder toward the two-year-old. We're much more forgiving and accepting. That is why morality is so important to this question of whether human beings have a free or a causal will. When we come to understand that we don't have a free will – that free will is an illusion – then we can apply the same understanding and rational compassion that we apply toward the two-year-old toward everyone in our lives, including ourselves.

It's not going to be without challenges. Even how we address those challenges, incidentally, is just as compelled and unfreely willed as anything else. For example, let's say someone does something that we are compelled to dislike. We're compelled to see it as wrong. What do we do? If we operate under a causal will perspective, we say to ourselves “alright, the person is not to blame.” But what if the person keeps, for example, stepping on our foot? That can't be the end of it. We basically have to take action even

though we know that the person does not have a free will, and is completely compelled to do what they have done or not done that we consider a threat. If someone is physically threatening us, we might say to ourselves “alright, the person does not have a free will, but neither do I, and, the causal past may have us engage in self defense.

The point is that when we understand that we have causal wills instead of free wills, it doesn’t mean that other people, or we, have license to do what we want. We don’t. It’s important to remember that when the universe compels us to do what is right, it usually rewards us with some kind of pleasure. When we do what’s wrong, the universe will often punish us in some way or another. So, even though we might be compassionate toward someone who is doing wrong, that doesn’t mean we absolutely have to be a doormat, or be vulnerable to other people’s aggression. And again, it doesn’t give us license to say to ourselves “well, I don’t have a free will, so I can do whatever I want.” It just doesn’t work that way. This is very important to remember, because many people see the reasoning of why we don’t have a free will, but can’t completely accept it because they are afraid that if we give up this illusion of free will, it will spell the end of civilization. Such a fear is much more likely than not to be unwarranted because we human beings are hedonic creatures. We seek pleasure and avoid pain. If somebody is doing something wrong, we may not blame them for it, but we’ll certainly have to take some kind of action to minimize the impact of that wrong. The same goes for us if we do wrong. We don’t have to be afraid of civilization collapsing because of our understanding that free will is an illusion. I think the potential benefits of understanding our wills as causal far outweigh its potential detriments.

Our whole civilization – our judicial system and system of business and economics – is based on the illusion of free will. With our criminal justice system, there is an appreciation of extenuating circumstances. There is somewhat of an understanding of our causal will. For example, if in our criminal justice system somebody does something wrong, and there is a mitigating factor – perhaps the person was distraught, or ignorant of certain facts, or has some kind of disability – our law accounts for that. It might minimize a sentence or find the person innocent. That’s recognition of causality. That’s recognition that a certain person could not have helped what

they did. In business, it's the same. We ascribe personal attribution to each other based on the belief in a free will. Some of us do much better at whatever than the rest of us. Our current free will perspective has us reward that person above another person who was not as lucky. That leads to the kind of economic competition that, if you want to get very real about it, is likely the main engine for climate change. We have a competitive culture that promotes the idea that "I of my own free will did something good, and I deserve to be rewarded for it" rather than saying, "No, what I did was not of my own free will. It was simply fortune or luck, and my personal well-being is not any more important than that of those of us who have been less lucky, and certainly not more important than the fate of our entire civilization over the next several decades because of climate change."

Our understanding of the nature of human will has profound implications and effects. When we understand that morality is not a personal attribute, the only entity you can talk about as moral or not is the causal past, or God. Whatever is making us do what we do is the only moral agent that exists. We're not moral beings as human beings because we're compelled to do whatever moral or immoral act we do. We're just like a hand that might do something right or wrong. We're not going to attribute responsibility to this hand; we're going to attribute it to the brain that makes it do what it does. Naturally, by the same reasoning, we're not going to attribute responsibility to the brain that leads the hand – we're going to attribute it to the causal past.

We're like a hand, and we think we're the brain or causal past. When it comes to morality, the better we understand that everything is causal, and that there is no personal morality, the less judgmental we will be. Think about some of the principle tenets in the major religions. Even though these religions get this question of human will wrong, they get much right. Religion tends to be about morality. Sometimes it doesn't live up to its ideals, but there is within most, if not all, religions, this idea of right and wrong. Sometimes it's not good to be *judgmental*, per se. We have to differentiate between right and wrong, but to be judgmental means to blame. So, this whole concept of non-judgment, whether it be Christian, Jewish, Islamic or whatever, really has its basis in the idea

that judgment doesn't fundamentally, as distinct from pragmatically, make sense. If someone is doing something, and you're judging them based on what they are doing, and they don't have a free will, then the judgment is misplaced.

You could, conceivably judge the causal past, or God. I tend to do that. I say to myself "well, if I was God, I would not have created pain. Naturally, if there is no pain there would be no evil, because evil is, by basic or utilitarian definition, what creates pain. In other words, if there was no pain, there could be no evil." If the causal past has compelled us to do wrong, we could say to ourselves "the causal past should not have done that." But, does the causal past have a free will? Does God have a free will? My guess is "no." Within our reality, there are a few aspects that transcend our ability to understand. I'll go through them briefly, and relate them to what we are talking about. Infinity; it's impossible to know whether space goes outward infinitely, or stops at some point. Either prospect appears illogical when contrasted with its alternative. The same goes for the eternities, going into the eternal past and into the eternal future. Our mind cannot wrap itself around the idea of reality going on forever and ever, just like it can't wrap itself around the idea of everything just ceasing to be. Within that context, it seems impossible for us to know whether the universe that is compelling us is compelled itself, or not. It's an open question. The reality that rings through is that the causal past may have a free will – may decide of its own accord what will be and won't be – but certainly we can't do that as human beings. It's because we don't have a free will that morality is not properly applicable to us. In other words, we're neither moral nor immoral. We're actors on a stage, doing what the causal past compels relative to morality. Sometimes it has us do what we consider to be good, and other times not. It's just not up to us.

Our world is at a very challenging time. Climate Change will be with us for at least the next several decades, and it's going to be extremely challenging. The global economy is going to be challenging. To the extent we understand that we do not have a free will, we will understand that we are not essentially morally responsible, and can be much more compassionate and non-judgmental toward the people in our world. That, I think, will be the

way we solve these problems, because the free will perspective causes blame and moral judgment, which causes denial, conflict and aggression, whereas the causal will perspective would likely lead to more intelligent responses.

4. What it All Means

Understanding that our wills and our reality are causal represents a new stage of civilization. It's hard to think of a comparable shift in our world. We went from thinking that our world was flat to understanding that our planet Earth is an orb. We went from seeing ourselves as the center of the solar system to understanding that we are three planets out from that center. But while these understandings might help with our astronomical model of reality, and help us travel to the moon and back, they don't really affect our personal day-to-day lives and our lives as a civilization. As we understand that free will is an illusion, and that causality, or cause and effect, is what determines everything, we begin to understand that it's a paradigm shift in our consciousness that is happening in our overcoming this illusion of free will. What will it mean to our world? Naturally, we can only predict, because, not having a free will, we can't compel ourselves, or the universe, to unfold in any certain way. Truth is generally a better guide to what we do, and how we do what we do, than illusion. I predict that by our world overcoming this illusion of free will, we're going to create a much more pleasant, intelligent, and compassionate world. When we attribute free will to others and to ourselves, we will tend to blame others and ourselves for our misgiving – for what we do wrong. When we have a causal will perspective, we understand that we're doing these things not because we choose, but because the causal past has compelled us to do them. Correctly perceiving our wills as causal can lead to greater compassion and non-judgment.

Let's now take a look at how this correct understanding of human will effects our global civilization. Geo-political conflict

between nations is, in large part, based on our illusion of free will. We say to ourselves “people from other countries have a free will, and they are doing something we consider threatening, so we are going to war with them.” Our other option is for us to say to ourselves “alright, those other countries may be doing what we consider threatening, and not in our best interest, but wait a minute. The actions of those people from that country – the leaders, the government, and the citizens – are completely compelled. They don’t have a free will.” From this perspective, punishing an entire country for what no one in that country could have done any other way doesn’t make sense. I have every hope and expectation that our new causal reality era will bring out the best in us.

This book is about the illusion of free will, and the reality of causal will, but we should remember that causality is not limited to human will. Causality controls everything. Consider the state of the universe at this very moment in time. The state of the universe at the immediately prior moment in time was what gave rise to it, and caused it to be. The state of the universe at each subsequent moment is completely determined by its state at the preceding moment. That is the most objective, all-encompassing, universal description of causality possible. It relates to the entire universe, state by state and moment by moment. What we find is that we don’t have free wills. We have causal wills because reality isn’t free; reality is causal. Reality can’t decide to be one way or another. It goes by certain laws and the causal progression of events. It’s important to realize that causality extends beyond the human will to all of reality. Our world is very much like a movie. I don’t know what you are doing right now besides reading this, but whatever it is, and whatever you did in the past, and what you will do in the future, is completely determined. It is not up to you, and that is amazing.

What does this mean? It means that the world is so much more “wonderful” than we have believed it to be. If we’ve been so completely deluded about the nature of why we do what we do, and about causality as it relates to human will, and we come to understand that our wills are causal – that all is governed by cause and effect – this new understanding changes everything. It makes reality far more wonderful than it is under the free will perspective. The free will perspective just confuses everyone, because it doesn’t

make sense. Our whole lives are based on a premise that is wrong. Of course, we're not to blame for this. We didn't choose to be deluded in this way. We didn't choose to believe we have a free will. That perspective was equally compelled. The universe has compelled us to believe that a delusion is reality, and it seems that the universe is now compelling us to understand that free will is not the reality; causal will is. I came to this understanding several decades ago, and it's a fascinating realization. To contemplate that everything is a movie, and that we're just actors, may have an element of unpleasantness, but that unpleasantness just comes from our ego. We have a part of ourselves that says "I want to take credit for what I do. I want it to be up to me." So, we give that up. We instead see that there is no individual I; there is a one. There is one universe, and one reality that proceeds from moment to moment in a causal manner. That is what compels us to do everything we do. It's amazing that we have for at least two millennia fallen prey to this illusion of free will.

One benefit that will likely result from our overcoming this illusion is that the world will become more intelligent, and routinely exercise greater intelligence. Seeing human will as free is not intelligent. There is absolutely no credible evidence that we have a free will, and there is conclusive, irrefutable evidence that our wills are causal. Our world needs to change. Just considering global warming and the 2008 global economic meltdown, we need to make great changes. As we understand that our wills are causal rather than free, these changes will come about much more quickly and intelligently. Overcoming the illusion of free will appears to be a great gift to humanity, and to the other forms of life with whom we share this Earth.

Many people who have held the belief in free will are going to be challenged. It's a challenge on the scale of creationism vs. evolution. Many of us still believe that there was an Adam and Eve, and that Eve was created from the rib of Adam. Scientifically, we don't believe that any more, but many people who once believed that now understand the overwhelming evidence against such a creation story, and in favor of evolution. Overcoming the illusion of free will actually represents a much more profound challenge because it lies at the heart of who we are. We have the choice of seeing ourselves

as gods who are able to think whatever we want at any time, or from the more humbling perspective that we are subjects. We're like pawns on a chessboard. We're doing the will of God, or the causal past. That's huge. We're going from the guiding philosophy that we have free will to the guiding philosophy that everything is causal; everything is a movie, and we're just playing out our roles. It's absolutely amazing.

As we go through our exploration, we'll get into all of this in greater detail. We're going to bring physics, neuroscience, and psychology, into this. There are various ways to understand why free will is impossible, and why both our reality and our human will must be causal, and we'll go through them. For now, let's contemplate what this means to us as a civilization and as a humanity. I can't think of a question like this that has confronted humanity in the past. There was the Scopes Monkey trial decades ago about creationism vs. evolution, and that caught the attention of the international media. But, years later, that issue is rarely talked about. This question of human will is capturing our attention as one of the fundamental questions and issues of our time. I'm not going to say it is a valid question, because the evidence against free will is so solid and compelling that it would not be truthful to present the matter as unresolved, at least objectively. In other words, if our world was debating between whether two plus two equals four, or two plus two equals five, that's not much of a debate. But to many people, the truth about our human wills will be a revelation. It is incumbent upon those of us who understand the causal nature of our will to help others understand this better. We should mitigate the fears people may have, and address people's misgivings about giving up their presumed god-like power to believe and think, and feel, what they want, regardless of anything.

Let's talk about criminal justice. This is extremely important. Anyone who has ever been imprisoned, or who is in jail or prison now, is in an important sense being punished wrongly. If somebody forced you to do something, and I mean absolutely forced you to the extent that you had no choice in the matter, is it morally right and just for you to be punished for this act that you absolutely had no choice but to do? Our jails and prisons are filled with people who are suffering that fate. This is, of course, not our fault, because we don't

have the free will to have overcome the illusion of free will, and treated them more compassionately and intelligently in the past. But, it's something we should recognize. Some of us will immediately ask, "Are you suggesting we give up laws and rules and order?" No, I'm not suggesting that. I'm asking, "How would you like to be in jail or prison being punished for something you were absolutely compelled to do?" What's the answer? Naturally, part of it is that we, as a people, have to be protected from each other and ourselves. If somebody is going around doing what is hurtful to themselves or others, certainly we need to take steps to prevent that kind of behavior. The greatest good for the greatest number is a philosophy we cherish, and that forms the basis of our democracies. By understanding that we don't have a free will, we can catch those of us who would eventually turn to crime in their later years when they are very young, and condition them to not go that route.

We now have many people in jail and prison for what they had no choice but to do. Transcending the illusion of free will is about how we are going to treat them. It seems quite wrong to punish them in retribution. There is the issue of punishment as a deterrent. Punishment will, in many cases, prevent others from committing crimes, but my guess is that as we understand that our wills are causal and not free, we will perhaps separate those of us who need to be separated from society for whatever reason, for their own sake as well as for the sake of the rest of us, but we'll do it without that sense of retribution. We'll do it without judgment or blame. Two hundred years ago in the United States, our criminal justice system was more about penitence. That's why our prisons were called penitentiaries and reformatories. Criminal justice back then was more about showing a person the error of their ways, but not through punishment as much as through relatively benign correction. We've gone from that kind of system to one that punishes according to the notion of "just deserts." They did something evil, which makes them evil, so we're just in making them suffer.

God willing, once we are able to reform our criminal justice system, those of us who would otherwise resort to crimes that hurt our society and ourselves would probably be far less likely to do so. Criminals often commit their crimes as a direct result of ascribing free will to another person. They say "this person freely hurt me, so

I'm going to hurt them back." Our criminal justice system is an area of civilization and society that this truth of our causal will relates to very directly from a moral perspective, and also from the perspective of alleviating unnecessary suffering. Our awakening to the reality that our world and our human will is causal is revolutionary. We will create what in many ways will amount to a brand new world. I don't know how long this might take, and to be completely honest, I don't know if it will happen. If we don't have free wills, we can't know for sure whether the causal past will lead us to understand that it, and not us, is really responsible for everything. But, from all of the evidence – our education, our development as a species, our becoming more intelligent and evolved – it seems this is clearly the way we are going. We're moving into an era where we will all very likely understand all of this. Some talk about the dumbing down of America – how somehow we've become stupid. The nature of human will is the kind of issue and question that can reawaken our intellect, and thereby help us all.

5. We Do Not *Experience* Free Will

The myth, or illusion, that we have the ability to choose our thoughts and feelings, and decide what we want, appears to have been prevalent at least from the beginning of civilization. We tend to hold each other and ourselves responsible for what we do. When we do that, it causes harm. When we assume or attribute responsibility, we often conclude that if we've done something wrong, we deserve to be punished. So, we punish each other and ourselves. When we do wrong, we often feel the pain of guilt. Aside from that, considering all of the evidence that demonstrates that we don't have a free will, for our entire civilization to be structured on the premise that we do is bewildering.

The most fundamental reason people say they have a free will seems to be that they claim to experience every thought they have as being fundamentally up to them. As we'll see, that is not actually the case. Before we get into that, I want to briefly define what people generally mean when they say they have a free will. Free will is generally accepted to mean that we can decide whatever we want regardless of our basic character, our personality, our unconscious, what we've learned or haven't learned, our genetic makeup, and so many other factors that actually combine to compel our every thought, feeling and action. The reality is that we human beings have causal wills. We have a will, in the sense that we make decisions, but all of these decisions are caused by factors outside of our control. Causality means that everything happens according to the principle of cause and effect. It means that everything that happens, including our every thought, feeling and action, has a cause. And that cause has a cause, because everything must have a cause.

Events do not happen in the universe that are not caused. The universe is causal, so our human will must be causal.

Consider that we experience the world as flat. We do not experience our world as an orb, which it is. That a flat world is an illusion we've understood at least since the time of Columbus in 1492. But that illusion doesn't make much of a difference, unless we want to travel around the globe, or to the Moon and back. That kind of illusion does not impact our everyday life, but the illusion of free will impacts it profoundly. When people say they experience a free will, what they really mean is that they experience a will. Let's distinguish between the two. The will is synonymous with volition, or the act of choosing or deciding. In a certain sense, we decide all of the time. I decided to write this book. You've decided to read it. But that is not what people claim. People claim that these decisions are free from the influence of the causal past, and how their parents raised them, and their desires, etc. For example, if a person is given a choice between an apple and a corn muffin, their choice is going to be determined to a great extent by which they prefer, or which tastes better to them. But, we don't get to choose our taste. There are many ways of describing the different factors that make free will impossible. Taste, or our preferences for different foods, is one.

Not everyone throughout history believed in free will. At 7:15 in a letter to the Romans dated about 58 A.D., Paul writes, "I don't understand myself at all, for I really want to do what is right, but I can't." I do what I don't want to – what I hate." He is actually describing what this book is about. If we had a free will, then every act would be completely up to us. Every moral decision would be completely up to us. If Paul had a free will, he could have been completely good, and never transgress his morality. He realizes he doesn't, and brings up the issue of human will in Christianity. It's not until about 380 A.D. when Augustine is grappling with the question of evil and punishment that he must have thought to himself "Wait a minute. If God is all-good, then we can't blame God." Augustine wrote a book called *De Libero Arbitrio*, which is Latin for "On Free Will." He apparently coined the term free will. So, if we do something wrong, it must be our fault. This is interesting, because I was doing some research on good and evil within the Judeo-Christian context, and in Isaiah 45:7, God is quoted as saying "I

form the light, and create darkness: I make peace, and create evil: I the Lord do all these things.” Before Augustine, people certainly did hold each other responsible, so they did seem to attribute free will to each other, but there was no term or doctrine describing this perspective. Again, Leucippus in the 5th century B.C. wrote the first statement on causality, the logical extension of which makes free will impossible. He wrote, “Nothing happens at random, but everything for a reason and by necessity.” If everything happens for a reason, that of course makes free will impossible.

Augustine claims that what we do is completely up to us, because God granted us a free will, however when you think about it from a theological standpoint, there is a contradiction. On the one hand, the standard teaching is that God is all-powerful, and that nothing happens without God wanting it to happen. On the other hand, we have the idea that God is ceding his power by granting human beings a free will. The logic there is clearly inconsistent. The concept of an all-powerful God is also somewhat incoherent. There is a question that illuminates this logical conflict – If God is all-powerful, can s/he create a boulder so large that even s/he can’t lift it? If you think about that, you will very quickly realize that the idea of an all-powerful God is incoherent. You might ask yourself, “Can God cease to exist? Can s/he just stop being God?” I’m not sure, but I don’t think so. Augustine came up with his personal solution to blaming God for the evil in this world. This is curious also because we’re taught in Judaism, and Christianity and other religions that when events go well, we should thank God. If something goes right, it is God’s doing, and we should feel grateful. But, when something goes wrong, it’s our fault. The inconsistency here could not be clearer.

The basic Judeo-Christian-Islamic teaching is that holding certain doctrines and beliefs will vastly improve your likelihood of spending the rest of eternity in Heaven than holding opposing doctrines and beliefs. For example, if you don’t believe that there is a God, that disbelief would put you at risk of eternal damnation. According to some, your not believing in free will would also put you at risk. This probably explains much of why people say to themselves “of course I experience free will.” Anyone who really delves into the question would more likely than not finally realize

otherwise. It may be because of this religious insistence on holding certain beliefs and rejecting others that we haven't explored the matter of human will as comprehensively as we could.

Let's explore in a bit more detail why free will is not what we experience when we make decisions. After this taping, I plan to take a break before doing another taping this afternoon. I could choose to go to the nearby White Plains Library to browse through some art books. I could also choose to go to the nearby Galleria Mall and have a cup of coffee, but let's say I opt for the library. If I were to claim that that was a free choice, I would be claiming that I made that choice regardless of, for example, the strongest motivation acting upon me at that given time. Part of me would like to go to the Galleria for a cup of coffee, and just hang out with people there. Part of me would like to browse through art books. I've been going to the Metropolitan Museum of Art in New York City recently – the amazing Egyptian collection – which may explain why this is so. My decision is not free of that. I am faced with two competing motivations – go to the mall or to the Library. So, what is going to happen? The stronger of those two motives is going to win out. I've actually already made the decision, but between now and then I could change my mind. I could at the last minute say "well, I would really rather be around people, and there are probably not many people at the library." I could end up going to the mall for coffee. But if I were to do that, it would be because I would be feeling that prospect as the stronger of the two motives.

We don't really experience a free will. We experience a will. I experience the will, the decision, the volition, to go to either the library or the mall, but I don't experience this will free of factors that compel it. Why might I have the motivation to go to the library and browse through books? Years ago, in college, I was an art major, and I have an appreciation of art. But we don't get to choose what we appreciate, or desire to do. For example, being naturally good at mathematics, or art, or music, or whatever, is not something we get to freely choose. We come into this world with a certain personality, and our personalities are, in fact, about fifty percent genetic. Naturally, if our personality is half due to our heredity, and our genes are certainly not something we can freely control, and the other half of our personality is due to environmental factors like how

we were raised, and where we were raised, and the kinds of unique experiences we've had in our lives, it's easy to understand that our human will is not free of those compulsions. When we make a decision, we're not "experiencing" that our decision was free of all of those factors. We're just experiencing a decision. If we took the time to ask ourselves, "Why did I decide this? What motivated me? What compelled me to decide this as opposed to that?" then we would realize that the decision was not free from certain factors that lie beyond our control. To say that we experience free will is to say that we experience a will that is free of even causality, or this process of cause and effect that governs everything.

All you have to do is acknowledge to yourself that if you made a decision, there must have been a cause for that decision – there may be one or several, depending on how you are defining cause. Every event must have a cause. We know this from science and experience. We know that nothing happens that is not caused. If there is a cause for our decision, then there is a cause for that cause, and there is a cause for that cause, and a cause for that cause. We sometimes refer to causality as cause and effect – the chain of cause and effect. So, if we took the time to investigate the reasons or causes for the decisions we make, we would see that they are subject to this chain of cause and effect. It is important to recognize that a cause can never come after an event, so each cause must always precede its effect. If you have a chain of causes going further and further back into the past, ultimately it is going to stretch back to before we were born. That alone tells you that our decisions are not free. We might want to explore the reasons for our decisions. I decided to go to the library because I've been going to the Met, and have been amazed by the Egyptian exhibit there. But why did that exhibit amaze me? It might be because I have some experience in art. Was that experience free from causality, or reasons? No.

Keep in mind that we're actually just guessing about all of these causes. We're trying to figure out why we did what we did, and we may or may not correctly identify its true cause or causes. But that there always is a cause is certain. Sometimes we'll get to the point where we must admit that we don't know why we feel a certain way. For example, I don't know why I'm so awed by Egyptian art, and find it so beautiful. If we don't know what causes us to make the

decisions we make, certainly we are not experiencing those decisions as having been freely made. By this reasoning, we can understand that 1) we don't have a free will and 2) we don't even experience our will as free. The notion that we obviously "experience" a free will, upon even a cursory exploration, turns out to be false. We don't experience a free will, we experience a will, and there is a world of difference between the two. Why is this so important? Someone might say that it's fine that we don't have a free will, but wonder how knowing that changes anything. Think about it. If we don't have a free will, every single decision we make is compelled by causes that we're not in control of. Everything that any of us thinks and does, and everything that happens – because causality is not limited just to human will; it applies to the entire universe – is completely determined by the causal past. Some people say that particle behavior at the quantum level is not determined, but that is actually a false interpretation of quantum mechanics. Particle behavior at the quantum level is actually entirely causal. There are certainly some actions going on at that scale that we don't understand. For example, we can't use the standard causality model of Newtonian, or classical, physics to make predictions at the quantum level, so we rely on probabilities. Nonetheless, the essential nature of matter is causal. The universe is causal. If it wasn't, and if our wills were not causal, how would that possibly work, and what would that even mean? How could anything happen that is not caused? The concept of randomness in the strongest sense of events happening without anything having caused them to happen is simply incoherent.

The world is like a movie. Actors are generally given some leeway in interpreting their characters. We are like actors who don't even get to interpret our roles. It is so amazing, and that's one of the reasons I wrote this book. It is also amazing that the universe, via the causal past, has compelled us to get the second most fundamental aspect of human nature completely wrong. Nature has done this to us before in certain ways, like with the illusions that the world is flat, and that the Sun revolves around the Earth. Another illusion is that our planet is completely still and motionless. The reality, however, is that we're hurtling around the Sun at over 60,000 miles per hour. Nature, or God, or whatever you want to call the universe or reality, apparently likes to have fun with us in this way. This illusion of free will is a natural illusion that has led us to get the fundamental

characteristic of human will completely wrong. There is more and more evidence coming out that what we think we decide freely with our conscious mind is actually being decided at the level of our unconscious. This is becoming a hot research topic in psychology and neuroscience. My prediction is that as we understand that our wills are not free, we will be much more understanding toward ourselves and each other when we invariably do wrong.

6. How the Hedonic Imperative Makes Free Will Impossible

Before exploring how the hedonic imperative makes free will impossible, we'll briefly review the basic purpose of this book, and review our definition of free will. We've had this illusion of free will for millennia, and the hope is that by overcoming it, we can create a better world – a world that is more understanding and intelligent. If we believe we have a free will, when other people do wrong, we'll blame them and conclude that they deserve to be punished. When we do wrong, we'll feel the pain of guilt. Naturally, understanding that we don't have a free will doesn't give us license to do whatever we want to do simply because we're not ultimately responsible for what we do. We need to hold ourselves accountable in a sense, but if we do it from a causal will, rather than a free will, perspective we create a kinder and fairer world. When people say that they have a free will, they mean that they can choose whatever they want, and that nothing outside of their control is compelling their choice. Their choice is completely up to them. In the area of morality, where the issue of human will is extremely important, if someone does something right, for example, they feel that because it was their doing completely, they, not just practically but fundamentally, deserve the credit.

We don't experience having a will that is free of the past – free of how we were raised, what we learned, what we didn't learn, our genetic makeup, our personality, and our unconscious. These factors come together to actually decide for us what we do.

One of these factors is what I've coined the Hedonic Imperative. Actually, it's like Freud's Pleasure Principle and expresses the basic principle in science that we as human beings are hard-wired to seek pleasure and avoid pain. That's what we do. Through every moment of our lives, we're making decisions based on the prediction that our decision is going to result in the greatest pleasure to us, immediately or in the future, or is going to minimize any kind of pain we might feel. We're completely programmed in this way. We are like a computer that must do exactly what it is programmed to do. We have no choice but to seek pleasure and avoid pain. Naturally, if every decision that we make is based on this hedonic imperative – this hard-wired compulsion and programming to do and think and feel what we predict is going to result in the greatest pleasure or the least pain – then how could that decision be free? How could that decision be up to us?

If a robot is programmed to make a left turn every time it runs into a wall or some kind of obstacle, then you certainly would not say that that robot has a free will. It is doing what it has been programmed to do. It can't do otherwise. We human beings are genetically and biologically programmed to seek pleasure and avoid pain. Some people might raise the objection that there are times when we could do what is most pleasant, but we choose to do what will create more pain for us. This is true, but in those cases we obey a conscience that needs to do what we consider right. I'm recording this show while the Libyan revolution is taking place. There are many Libyan citizens that are going out into the street risking, or losing, their lives for the greater good of Libya. The pain that they would feel by not fighting for this democracy and freedom from Gaddafi as a cruel dictator would apparently be greater than the pain of risking getting injured or killed. That is what our conscience is about.

There are other examples of this. Sometimes as parents, we will sacrifice and work very hard. Mothers have to constantly attend to their infants. Their conscience won't allow them to just simply do what they want, and seek their own pleasure at the expense of the health and well-being of their children. If necessary, they will choose to undergo the pain of being very attentive to the child, sacrificing their own pleasure for the sake of the child. This sacrifice is a

satisfaction of the demands of their conscience. The hedonic imperative isn't the only hard-wired reason why free will is impossible. We also have a moral imperative, which is actually quite related to the hedonic imperative in the sense that we're hard-wired to always do what we consider to be right, and what is right generally leads to the greatest pleasure. Of course some people may know that what they are doing is wrong, and may decide to do it anyway. But when you think about it, in their mind, at the time that they do that wrong, they are justifying their decision. Consider an employee who steals from a company. That employee is saying "I know I'm doing something that others and I may generally consider wrong," but another part is saying "well, this company has been stealing from its employees and hurting those employees in various ways," There is always a justification – right or wrong.

There are many ways of understanding why free will is impossible, and why we simply don't have a free will. Cause and effect and the fact that we have an unconscious that is always awake and taking part in our decisions are prime examples. There have been experiments where subjects have been *primed* – have been led through a certain exercise that influences them to think in a certain way – and they are observed as they make a decision. They are then asked why they made that decision. They will give an answer, but that answer will generally not have anything to do with the priming that has taken place. In other words, they are just guessing at why they did what they did, and they are getting it wrong. They are not conscious of how the priming they underwent actually compelled their behavior. Leaving all other factors aside, the hedonic imperative completely describes why free will is impossible. Again, if we're programmed to always seek pleasure, we must do that. We have no other choice. I'm a vegan. I can't conscience how cruelly we treat farm animals. If I we're given a choice between an apple and a pizza, my conscience would lead me to not eat the pizza because it contains cheese. Part of me might prefer a pizza because it might taste better to me than the apple. But, I derive more pleasure from satisfying my conscience than from satisfying my taste for food. Sometimes we are faced with competing pleasures. It's not just that we are always compelled to seek pleasure; we're also compelled to seek the most pleasant of various available options. If we had a free will, everyone on the planet would be completely happy every

moment of every day. A free will, by definition, means that we can think whatever we want regardless of what is happening, what has happened, and what will happen. It means that, regardless of anything and everything, our decisions and our feelings are completely up to us. The doctrine of free will teaches that what we think, feel, say, and do is completely up to us.

We're hardwired to seek pleasure, but many times we are not successful at acquiring that pleasure. If we had a free will, who among us wouldn't choose to think completely blissful thoughts all of the time, and to feel completely blissful feelings all of the time? It is so clear and obvious that this is what we would do. If we had a free will, like Paul expressed in his letter to the Romans, we would do good and be good always. Whenever we are confronted with a moral decision, we would never yield to temptation. We would never yield to emotions that might be driving us to make the wrong, or immoral, decision. The hedonic and moral imperatives are a good way to understand why free will is impossible. There are other imperatives – other kinds of programming that we are hard-wired for. We have a reason imperative. It works alongside the hedonic imperative to help us make the most reasonable of two or more options. It gives us pleasure to be reasonable. If we're trying to transfer a liquid from a container to either of two other containers, and one of the containers is clearly not large enough to hold the liquid, we're naturally not going to choose that container. It wouldn't make sense, and would oppose our logic and reasoning. We usually do what we consider to be the most reasonable of available options.

Sometimes, however, we do what is clearly unreasonable because it is not just reason that compels our decisions. There are so many factors that make free will impossible. We may be trying to be reasonable about something, but our emotions kick in. We've all had experiences when we're discussing something with someone – someone we may love or care very much about – and we and they are trying to be reasonable. But then emotions like anger and fear come into play, and our reason is over-ridden by these emotions. We are also programmed to act according to an imperative we know as the survival instinct. We will choose based on our prediction of what is going to lead to our greatest chance of survival. All animals appear to have this instinct. Another imperative is the instinct to

procreate. We have a hard-wired drive to reproduce, and propagate our species. If we're always seeking pleasure, or goodness, or to be reasonable, then our wills are not free of those imperatives. We must seek pleasure. We must avoid pain. Why is this important? We live in a world where our entire civilization is founded on an illusion. In our criminal justice system, we have people who have spent years in jail or prison for what they had absolutely no choice but do. There are people in our world who may not want to fund our education system because they feel that we can educate a child as well as we like, but at the time they have to make a decision as an adult, that education will be meaningless because that adult can freely choose whatever they want, regardless of any and all influence from that education. In our everyday lives, we have many interactions with other people, and to the extent we don't understand that they are compelled to do whatever they feel is either the most right, or the most pleasant, or the most reasonable, then we will be more understanding toward them. We're not going to blame them when they invariably do wrong. We're not going to say to ourselves "they deserve punishment."

A good example of this is Libya. Gaddafi has killed over a thousand civilians, mostly unarmed. The general tendency is to hold him responsible, and hate him. Because I understand that Gaddafi does not have a free will, I can't blame him. At the same time, however, my conscience won't allow me to, in a certain sense, not hold him responsible. What I say to myself is "God willing, our military or the Libyan People will stop him somehow, or ideally he will step down. But if he doesn't, we may need to kill him in order to stop him from killing more people. This is a decision I would make not from blame or hate. Hate is generally a vile and unpleasant emotion, and even to the extent we might enjoy hating, we probably hurt ourselves much more than we realize with our hatred. Abandoning the illusion of free will doesn't mean that we're abandoning morality. We can do what we have to do from a more understanding causal perspective. It may be that if we treated criminals with less hatred and more understanding, we might dissuade them from continuing their criminal ways. In police work there is a strategy referred to as "good cop – bad cop" wherein the good officer shows compassion and understanding toward the suspect. Basically, that officer is acting according to a causal rather,

than a free will, perspective. We often find that when people are treated in that way, their defenses drop. They think to themselves, “Hey, this person really isn’t blaming me. This person understands my predicament. I can trust him.” This question of human will is very important to our personal lives and the structure of our society and civilization

7. How the Unsolicited Participation of the Unconscious Makes Free Will Impossible

In this chapter, we're going to explore how our unconscious, which we all have, is constantly involved in every decision we make. We can't avoid this influence; its participation is unsolicited. We don't ask our unconscious to work. In fact, the reason we term the unconscious the unconscious is that we're literally not conscious of it. We've determined we have an unconscious through various indirect means, some of which I'll go into later in the program. But this unconscious never sleeps. It is always active, retains all of our memories – what we've learned – and it takes part in every decision we make.

In science and reason, there is the principle of causality. Nothing is uncaused. If something happens, there is always a reason, or a cause, (or causes) for it to happen. There is also a principle in science and philosophy of *sufficient and necessary* cause. For example, if I want to lift the table in front of me, I might grab it with my right hand, and lift it. The cause of the table rising would, therefore, be my right hand and arm lifting it. But, what if while I'm reaching for it with my right arm, I am also reaching for it with my left arm, and lift it with both arms and hands? In that case, I can no longer say that my right hand was the sufficient and necessary cause of the table rising. The left hand was also involved in the lifting. So, it is actually a combination of these two causes that results in the table rising.

Let's now apply this principle and reasoning to the unconscious. Our right arm and hand will represent our conscious

mind. It says, "I'm going to decide to lift this table." But our left arm and hand is our unconscious. Again, we are not even perceptually aware of it in real-time, but it is always active. It takes part in our every decision. Consider also that even if our unconscious were not taking part in every single decision we make, we could never know with any degree of certainty whether or not it was participating in any given decision. Actually, the truer and more precise reality is that although our conscious mind believes it is making the decision to lift the table, it is actually our unconscious mind that is making that decision, and allowing our conscious mind to be aware of the decision. If the conscious mind and the unconscious mind are involved in the decision to lift the table, we cannot say that the decision was consciously and freely made. We cannot say that the decision was free of the participation, in this case, of the unconscious. If our unconscious never sleeps, and our conscious mind simply ceases to be conscious during sleep, our dreams must all originate at the level of the unconscious. Our unconscious occasionally allows our conscious mind in on the content of what it has dreamed.

How do we know we have an unconscious? How do we know that this unconscious is actually making the decisions that we ascribe to our conscious mind? One way is through hypnosis, and what is known as post-hypnotic suggestion. Medical hypnosis has been around for over 200 years. You can hypnotize people, and when they're in that hypnotic state, you can give them the post-hypnotic suggestion that when they wake up, they will do something. For example, you might tell a hypnotized person that when the phone rings, he will get up from his chair, get on his hands and knees, and crawl a few paces. This is not just theory; this is fact. Psychologists have done the experiment. The subject, indeed, hears the phone ring, and crawls on his hands and knees in fulfillment of the post-hypnotic suggestion. How does this relate to the question of whether or not we have a free will, and whether the unconscious mind really is an unsolicited participator in thoughts we wrongly ascribe to a freely willing, conscious mind? Well, the psychologists then ask the subject "What are you doing?" He may respond with something to the effect that he is just admiring the pattern on the carpet, that, he may add, he finds interesting. Or he might say "I don't know; I just felt the need to stretch a bit." The idea is that the

subject will make up a reason that he thinks is the actual reason he chose to get up and crawl across the floor. That is a perfect example of how the unconscious exists, and actually makes decisions for the person.

Priming is a hot and intriguing area of research. John Bargh, a Yale University professor, has done important work with this. Priming is similar to hypnosis, but the subject is completely awake. In one experiment, there are two groups – the target group and a control group. The target group is asked to take some words and make sentences with them. They are given the words “bingo,” “gray,” “cane,” and other words that connote being old, or the concept “elderly.” The control group is given arbitrary words that do not have any strong or implicit connotation. The subjects from both groups complete the task, and they think that the experiment is over. But, it is not, because during the last part of the experiment they are observed walking from the experimental area to the elevators to leave the building. Interestingly, the target groups that had been primed with words connoting elderly walk more slowly to the elevators than do the control groups. Naturally, that tells you that the target group is consciously walking to the elevator, but their unconscious mind is participating in how they perform that action. This is a perfect example of the collaboration that takes place between conscious and unconscious activity, completely hidden from the subjects of the experiment. The subjects are not aware that the priming is the reason they are walking more slowly.

There’s another priming experiment that demonstrates this quite interestingly. It’s the same kind of word task as in the “elderly” experiment. The target group is given words like “rude,” “abrupt,” “impolite,” and “hasty.” The second target group is given words like “polite,” “respectful,” and “patient.” As, with the other experiment, the subjects in both groups think that they have completed the experiment by doing the word task. They are told that when they are done with the task, they should go to a nearby colleague, and hand them their completed task. They do that, but the colleague is a part of, – a cohort in – this experiment. The colleague has been instructed to be engaged in dialogue with a third cohort for ten minutes. What happens is that the subjects in the experiment generally want to wait until this conversation is over so as not to interrupt. What the

experimenters find is that the subjects in the group that had been primed with words like rude and abrupt tended to interrupt the cohorts' conversation sooner than did the subjects who had been primed with words like polite and patient. The second part of this experiment demonstrates that these kinds of decisions that we attribute to our free will – that we think we're making completely on our own – are actually made at the level of the unconscious. The subjects are then asked why they waited as long, or as short, as they did before interrupting. Again, very curiously, the subjects invent reasons. "Well, I've always been taught to wait until somebody is done with the conversation," or "I don't know; I just felt like it." They will invent reasons, but none of the subjects in either group are aware that what determined, in part, the time it took them to interrupt was the priming.

There are many experiments that demonstrate how the unconscious is actually making the decisions that we generally attribute to our conscious mind. There is another kind of experiment that demonstrates this decision-making at the unconscious level far more clearly and strongly. Beginning in the 1980s, Benjamin Libet and others researchers hooked subjects up to imaging machines like electroencephalograms (EEGs) and functional Magnetic Resonance Imagers, (fMRIs) that measure brain activity and EMGs, (electromyograms) that measure muscle activity. It turns out that before the conscious mind is aware of its decision, in these experiments a simple motor movement like flexing a finger, the unconscious has already made the decision. More recent experiments, by Chun Siong Soon and his colleagues have, in fact, detected decision-related activity in the unconscious as far back as ten seconds before subjects were aware of their decision to perform the act. So, we have an unconscious that's either taking part in whatever decisions we make, as in the table-lifting example, or making the decision entirely, as with the imaging case.

Before Freud and the mesmerists did their experiments with hypnosis, there wasn't a way to empirically demonstrate that we humans have an unconscious. Now, the results are irrefutable that we do. When you think about the unconscious, think about all that is happening in your body – your heart beating, your organs functioning, your lungs breathing in and out. All of this is part of the

autonomic nervous system, which basically doesn't rely on our conscious direction. In other words, we don't have to think about it; it basically works on its own. Actually, that is another way of understanding the pervasive role that the unconscious has in not just our decisions, but also on our basic biological makeup and functioning. Because we have an unconscious that is always awake and active, we can never claim to any degree nearing even 50 percent certainty that we make decisions that the unconscious takes no part in at all. Such claims are also mistaken because, again, we are not even aware of our unconscious mind in real-time.

Another way to understand how this unconscious participation works is through mood and feelings. If it's overcast or raining, we will feel differently than on a bright, sunny, and warm day, and that difference will lead to different decisions. There are many other ways to understand how and why free will is impossible, but even if we leave aside causality as the fundamental process of the universe that nothing escapes, and even if we don't consider the hedonic, moral and other imperatives, and even if we don't consider the effects of our upbringing and past experience, and we simply consider that we all have an unconscious that is constantly at work, then we can understand why free will is impossible. It is mind boggling that our civilization has been under this delusion of free will for millennia. If we're so fated, and the causal past and our unconscious determine that we're going to wake up from, and transcend, this illusion of free will, that means that we will have evolved a distinctly new consciousness, and an entirely new way of perceiving our reality and ourselves. That is a huge step in evolution.

8. Asking When a Child Gains it Illuminates the Incoherence of the Concept *Free Will*

Often people will confuse the term “free will” with the term “will.” When people say that they have a free will, they are actually saying that they have a will. We make decisions all of the time. These decisions are based on reasons, or causes. The notion that we can make decisions that are not based on a reason is incoherent. How can we make a decision not based on some reason? We can’t, and this is true whether or not the reason is unconscious. If we were to make a decision, and it was actually possible that there was no reason for it, obviously the decision could not have been freely made. If there is a reason for it, this brings the principle of causality into play. If there’s a reason for the decision, there is a reason for the reason, and a reason for that reason. If you follow this chain of causation back, it extends to before the person making the decision was born, to before the planet was created, and presumably to before the Big Bang. Causality is the fundamental explanation for why our wills are not free. Again, when people say that they have a free will, what they are saying is that “I can choose whatever I want. What I do is completely up to me. It is not up to anything else.” What we actually have is a causal will. Our decisions are not really up to us. They are up to many factors that are not in our control at all.

One of the ways that we define free will goes as follows. If we have a free will, then that means we’re essentially responsible for our acts – we’re fundamentally responsible. It’s not that we simply hold ourselves responsible, but that we actually are responsible. If we have a causal will, that means that we may hold ourselves

responsible to preserve our civilization and to have a certain degree of order, but that attribution, is just a convention. Perhaps because we don't know any better, or for some other reason, but the fundamental reality is that we're not responsible. The universe, or God, may be responsible for our actions, but that prospect lies beyond the scope of this inquiry. If being responsible for our acts is our definition of free will, then we have a problem. We all agree that a one-day-old infant does not have a free will, in the sense of being responsible for his or her actions. You can't hold a one-day-old responsible for a moral decision – for soiling itself, or peeing on you. We all agree that a one-day-old infant is not morally accountable, and therefore does not have a free will. Naturally, the reason infants don't have a free will is that they don't have the capacity – the experience and brain development – to make a moral decision. So, if a one-day-old doesn't have a free will, at what point, at what moment, at what age – what would have to happen – for that human being that doesn't have a free will to suddenly acquire one? That question is fraught with contradiction and confusion. We might say that a child will develop free will when the child has gained a certain amount of knowledge and experience in the world. Then, all of the sudden, the child would go from being a human being that is not essentially responsible to a human being that is essentially responsible. But, if that's the case, would that mean that a child who has acquired much more knowledge than another child would have more free will than the more ignorant child?

That would mean that some people have more free will than others, and a person who is almost completely ignorant would have almost no free will. An infant doesn't have much intellectual maturity, or its rational thought processes haven't developed much yet. Well, when might that happen? At what age? That would, of course, mean that one child would develop a free will before another child. Asking those questions invites much confusion. What about a person who is brain damaged? It would be presumed that they don't have a free will. What about the mentally and emotionally challenged? The intriguing part of this question relates to the exact moment that a child would go from not having a free will to having one. Again, this relates to causality because it's not just about a child's intellectual development, amount of experience, maturity, etc. Those aren't the only factors that prevent a child from having a

free will. The other inescapable prohibition is that the one-day-old child, like a five-year-old, or a ten-year-old, or an adult, lives in a physical universe that is completely governed by causality. In science, we understand that change is the fundamental process in the universe. Change means that a particle, or molecule, is at one place at one moment, and in another place the very next moment. The universe is not static. It changes, and the fundamental process explaining this change is causality. Things cause other things to change, and everything has a cause. Without causality, there would be no change.

If we agree that a one-day-old infant doesn't have a free will, and we want to assert that at a certain age – two, five, ten, whatever – the infant suddenly acquires one, we would have to explain how that infant suddenly develops the ability to circumvent this fundamental law of nature that is cause and effect. It's simply impossible for an infant, or a child, or an adult, or anything at all – alive or not – to overcome the causal nature of the universe. Those of us who may not accept causality as the fundamental process that everything in the universe is governed by may wish to consider the alternative. If actions were not caused, they would be *random*. Randomness has various definitions. You can put your hand in a bowl of ping-pong balls, and pick one out randomly, but that is just a manner of speech. You are acting without the deliberate intention to pick out a specific ball, but the whole process is nevertheless causal. If events were not causal, how could they come to be? If a child's, or our own, decision, is not caused – if anything in the universe is not caused – how could it have happened? Nothing happens that isn't caused. That's the salient understanding here. When you understand that everything has to have been caused, including the causes of causes, then you understand how it would be impossible for a child to go from not having a free will at one day old to suddenly having one at the age of five or ten. It would be as if acquiring more intelligence, or maturity, or knowledge, would somehow allow the child to circumvent this basic law of nature – the law of causality.

This truth that human will is causal and unconscious rather than free represents a leap in the evolution of the human mind. Perplexingly, we have been predetermined by the past that controls everything to believe that we have a free will – to get wrong the

most fundamental characteristic of human will. We didn't of our own accord decide to get it wrong just like we didn't decide to get that the Earth is an orb rather than flat wrong or that the Earth revolves around the Sun rather than visa-versa wrong. For millennia, we've been predetermined to hold this free will illusion. Imagine what it would mean for our world – not just some philosophers, psychologists, and physicists – to understand the causal nature of human will. I would guess most physicists understand that free will is impossible because they understand that the physical laws of nature control everything. Sometimes people will assert that physics relates to the physical world, but that thoughts, and feelings, and decisions are actually *spiritual*, and operate outside of physical law. They do not. In physical reality, or nature, there is the idea of time. As Einstein demonstrated, it's more accurately described as "space-time," because time and space are actually one entity. Space requires time, and time requires space. You can't have one without the other. Let's define spirituality as that which we can't detect or measure physically. Now consider that every decision we make, however spiritual it might be, would have to take place within a specific moment in time. Think about that. If the decision is being made within a certain particular moment, it is clearly within time. Thus, the spiritual nature of a decision does not allow it to circumvent time. So, another way to understand why our decisions are not freely willed is to consider that a spiritual decision cannot reside outside of the laws of nature, or outside of space-time.

The most fundamental way of understanding why free will is impossible, and why cause and effect govern everything, is to consider the universe in its entirety. When I say the entire universe, I mean regardless of whether the universe is finite or infinite. The universe at one moment in time completely determines the universe at the next moment in time. The state of the universe at that next moment in time will then completely determine the state of the universe at the subsequent moment. Naturally, this chain of cause and effect that involves the entire universe also goes back into the past. This moment in time is the complete result of the previous moment, and the previous moment in time was the complete result of the immediately preceding moment. That chain of causality stretches back in time at least to the Big Bang. If a decision that we describe as spiritual is taking place within a precise moment in time in the

universe, it can't escape causality. The decision occurs within a universe defined as everything there is, spiritual or whatever. If it is occupying a specific place in the universal timeline, the decision is determined by the causality inherent in that timeline. The decision cannot escape causality.

This is huge. John Searle's statement at the beginning of each episode to the effect that demonstrating free will to be an illusion would be "a bigger revolution in our thinking than Einstein, or Copernicus, or Newton, or Galileo, or Darwin" is true. We undergo evolution in the sense of our physical bodies evolving. People are getting taller. We're losing our hair. Our brains are getting bigger. Some changes happen over the course of over a million years, but there are some changes that occur within decades. There is also an evolution of our mind. We are becoming more intelligent as a species. To move from our mistakenly perceiving the fundamental nature of our human will as free of causality—free of reasons, free of any and all factors not in our control—to the accurate understanding that our wills are causal, and that reality is essentially like a movie, is truly revolutionary.

We generally understand that the universe is causal. Some people may claim that particle behavior at the quantum level is random, in the strongest sense, but they are thereby claiming that such particle behavior is uncaused. That is an absurd conclusion. It is not founded on reason. It is not founded on evidence. How could something that has happened not have been caused? At the quantum level, it is impossible to measure simultaneously the position and momentum of a particle. It is therefore impossible to use Classical, or Newtonian, physics to accurately predict the behavior of quantum phenomena. So, at the quantum level, physicists rely on probabilities. Instead of measuring the movement of one particle, they measure the movement of groups of particles. They thereby predict a single particle's behavior through probabilities derived from the movement of those groups, as opposed to through the exact, direct measurement of that particle. We may not know the factors that contribute to a particle's being in one place at one moment, and then all of the sudden being in another place at the next moment. But such ignorance of the agents impinging upon the particle in no way leads to the rational, scientific conclusion that the particle's behavior

has not been caused. Again, the prospect of a particle's behavior being uncaused is incoherent. How could something not be caused?

Transitioning from the illusion of free will is a huge step in the evolution of humankind. It can generate profound changes in our civilization. Right now, everything from our criminal justice system to how we raise our children, to how we reward what we do related to economic activity, is all based on the mistaken premise that human beings have a free will. When you consider that this illusion of free will leads to people blaming each other and themselves, you can understand why there is so much conflict and so many wars in this world. If we're mistakenly blaming others and ourselves for behavior that we have absolutely no control over, and then acting on that blame, it's going to create a much more aggressive and hostile world than if we were to overcome this free will illusion, and understand that everything we do is completely compelled.

9. Overcoming Our Reluctance to Overcome the Illusion of Free Will

Let's work on overcoming our reluctance to overcome the illusion of free will. Often, we'll understand the logic and reason of why we don't have a free will, but we enjoy having a free will. It's something we're preconditioned to like; it is not our choice. We're hedonic creatures, and we're programmed to believe and cherish the notion that we have a free will. Before we get into this, let's briefly go over the purpose of this book, and a definition of free will and its alternative, the reality of our predetermined, and unconscious, will. The reason this book is important is that the illusion of free will causes much unnecessary harm. Consider that a two-year-old does something wrong. We don't ascribe free will to that two-year-old, and because of that, we will treat him or her with understanding. We'll say to ourselves, "a two-year-old could not have helped him or herself." But when it comes to older children and adults, we say, "You did this of your own free will, and you deserve to be punished. You're bad. You're evil." We also do this to ourselves. When we do something wrong, we say "I did something wrong, and it's right for me to suffer this guilt of having done something wrong." Attributing free will to others and to ourselves causes a great deal of unnecessary blame, guilt, and aggression. Before I go further, I wouldn't recommend that we do without a kind of quasi-personal morality. In other words, not having a free will doesn't give us license to do whatever we want.

What people mean when they say they have a free will is that nothing that they are not in control of is compelling them to decide

what they decide. Control is the key. They say, “I’m in complete control of what I decide and don’t decide. Now consider that our unconscious, by definition, is not under our conscious control (at least in real-time). We’re not even aware of it, and it’s always awake. The unconscious is what makes our heart beat, and it controls our other bodily functions. It’s where we store our memories and our thought processing. We can’t make *any* decision without the unconscious being involved. Naturally, if our unconscious is not in our control, you can see how free will is impossible. We have a causal will. We have a will that is subject to causality. Whatever decision we make has a cause, and that cause has a cause, and that cause has a cause, etc. These causes go back in time, and this causal regression leads to before we were born, and before the Earth and Sun were created. It’s easy to see how, through this cause and effect process, events in the past ultimately led to what can be described as the movie we’re all acting out. It is perplexing that nature, or God, has predetermined that we have this illusion of free will. It is so completely opposite to the way things are, and for this reason alone, I think it would be in humanity’s best interest to finally understand the true causal and unconscious nature of our human will.

Let’s overcome our reluctance to overcome the illusion of free will. Free will is actually more of a delusion. Some people understand logically and rationally that free will is impossible. They understand that we have an unconscious that makes free will impossible. They understand that causality makes free will impossible. They understand that even if decisions were random, in the strongest sense meaning uncaused, and they could actually happen that were not caused, that would also make free will impossible. If our decisions aren’t caused, then they certainly cannot be caused by our free will. Many people understand this, but they still are compelled by fate to believe in free will. They cannot let the illusion go. The point here is that when an illusion gets where you know that it’s an illusion, but you still believe it, it’s no longer an illusion. At that point it has become a delusion. Our whole humanity is completely deluded regarding the very nature of our human will. I want to explain what I mean by the word “delusion.” Consider the well-known visual illusion depicting a horizontal line with inward-pointing arrows at each end above a horizontal line with outward-pointing arrows at each end. If you were to ask yourself which line is

longer, it seems like the one on top is the longer of the two. That's the illusion. If you then measure the two lines with a ruler, and you determine that the two lines are, in fact, equal in length, and you still contend that the top line is longer than the bottom one, that's where your illusion has become a delusion. Most people have never thought about any of this. There is a term *free will*, and people just assume it's true. Few people have explored human will enough to understand how and why free will is impossible.

Why do we continue to believe in free will? Some of us say to ourselves, "If I were a robot, or an actor, life would have no meaning. We couldn't take credit for anything." Most of us are religious, and tend believe in God, or a higher power. Part of us doesn't want to see ourselves as robots, or puppets – completely programmed beings, and everything being a movie. Another way to look at this, however, is that God's will is manifested through us. Some of us believe that God exists outside of space and time – outside of the universe. But that doesn't make sense. One of the definitions of God is that s/he is omnipresent, or everywhere. So, a clearer understanding of God is that s/he is everything, and we're a part of God. In that sense, we are instruments of God. That's a good way of seeing this that many people can relate to within a religious context. We're vehicles for God's will. When we see it from that perspective, it restores our nobility. We're not mere robots or puppets. We are the physical manifestation of God's will. God expresses Her/Himself through us. That way of seeing ourselves should be more palatable to many people. It should make understanding that we don't have a free will easier to accept.

There's another reason many of us are afraid to accept that we human beings do not have a free will. They believe that if we were all acknowledge that no one has a free will, and acted according to that understanding, there would be no true personal morality, and we could not be held accountable for anything. We could not take credit for the good we do, and we could not blame each other or ourselves for the bad we do. It's an understandable fear. Some of us are afraid that if everyone comes to understand that we don't have a free will, we will all do whatever we want, and say, "You can't blame me. I don't have a free will." Incidentally, there is a philosopher named Saul Smilansky who wrote a book titled *Free*

Will and Illusion, and he understands that free will is impossible and that it's an illusion. But, his perspective is that we shouldn't tell people this because if we were all to understand the true nature of our will – that we're instruments of God rather than gods ourselves – we would act with reckless abandon. Not incidentally, from a religious context, if we had a free will, that would also mean that we create our thoughts – that we are the authors of our thoughts. However, our understanding of God is that s/he is the only entity in the universe with the power to create. Some of us believe that if we relinquish our belief in free will, there will be anarchy. No, because we're hard wired to act in certain ways. For example, we're governed by the hedonic principle. Freud explained this as the Pleasure Principle, and there have been other formulations of this principle in biology and the other sciences. The idea is that we human beings are hard-wired and compelled to seek pleasure and avoid pain. Sometimes we'll undergo a certain amount of pain in order to satisfy our conscience. But, the idea here is that because our basic motivation in life is to seek pleasure and avoid pain, we're not going to let others just get away with claiming "Well, I don't have a free will so I can do whatever I want." We're not going to let ourselves get away with that either.

When we attribute free will to ourselves and each other, and we do wrong, we accuse and blame. "That person is bad; he's evil." We do this to ourselves, and we do this to our friends. When we do this geo-politically, it can result in wars. As we overcome this free will-dependent attribution, we can at least be more understanding. We can say "alright, this person did something wrong. We can't allow him or her to continue doing it because it's hurtful to us all, and we have to take steps to prevent it." By not acting according to the illusion of free will, the steps we would take, however, would likely be far more compassionate and understanding. The person who does the wrong is not going to feel like they are an evil person. When we do wrong, we're not going to feel like we're bad. Our overcoming the illusion of free will would likely create a much kinder, and far more intelligent, world. When we acknowledge that there is no personal morality, and things go wrong, what do we do? In religion, when things go well, we're taught to be grateful because it's God's will that caused them to go well. We thank God. Unfortunately, when things go awry, it's our fault. As a sideline, it

seems an open question whether or not God has a free will. Part of me hopes s/he doesn't, because if God doesn't have a free will, we can't blame God for anything. A benefit of not believing in free will is that we can thereby hold ourselves as innocent – as blameless. To be able to hold God as blameless would also be good.

It may take a few years or decades for people to understand that our wills are not free, accept this truth, and apply it to our personal lives and societally. Interestingly, we already incorporate the understanding that our human will is not truly free. In today's criminal justice system, if a person is considered to not have known what they were doing at the time of their wrongdoing, we apply what we refer to as the *insanity defense*. We understand that you can't justly hold someone responsible for what they did if they did not genuinely, or sufficiently, know what they were doing. This can happen with certain kinds of brain injuries and various illnesses. With free will exposed as an illusion, our criminal justice system would, over time, become much more compassionate. While we may have to separate some of us who would otherwise go around committing crimes, it would likely be a more compassionate separation. Consider that people often commit crimes against another person because they blame that person for something. They conclude that a certain person did some wrong, and at times desire to get him back. It's about revenge and retribution. If people generally did not believe that other people have a free will, much of that attribution-based crime would be avoided.

Our overcoming the illusion of free will would make life so much more wonderful – and I mean literally wonderful, as in “full of wonder.” Think about it; everything is a movie. What I'm saying right now has been predetermined from before the Earth and Sun were created. It's not just about our decisions. Everything that happens, everything that moves, every bird that flies, every rock that falls, every planet that travels, is predetermined. To my mind, it's perplexing, and amazing, and bewildering, but it's also wonderful. I start each show with a quote from American philosopher, John Searle. He says that if free will is an illusion, that would be a bigger revolution in our thinking than Einstein, Copernicus, Newton, Darwin, and Galileo. I think he's right. Overcoming the illusion of free will would give us an entirely new mindset, and perspective.

Why do we need a new mindset? We've made a great deal of progress in our world. About two hundred years ago, almost everyone on the planet was poor. Today, many of have so much more than we need. We have many blessings. Our world works very well in many ways. But in some ways it doesn't work at all. For example, climate change will challenge us for decades. It's probably too late to do all we could have done about it, because the climate-driven effects we're feeling today were caused twenty or thirty years ago. If we adopt the understanding that free will is an illusion, we can approach its challenges, and all of our other major challenges, with greater cooperation.

Under the free will perspective, we say "they are doing something wrong. They're bad. We're opposed to them, and they're opposed to us." When we have that kind of relationship with each other, it's hard to get things done. It's hard to reach agreement, because if you're one of the people doing something wrong, to admit this is akin to admitting that you are a criminal, or just bad. We don't tend to do that. But, if everyone shared the understanding that we don't have a free will – that if people do something wrong it is only because they were compelled to do so, and it wasn't truly their choice – we could still say "listen; you need to stop polluting the Earth and warming the climate." When people don't, and are not made to, feel responsible for those kinds of egregious actions, then they can more easily *assume* a certain kind of responsibility.

Another major challenge we have is that until about sixty years ago, our farm animals were treated so much more compassionately than they are treated today. Our cows had pastures to graze on, and our chickens were free to roam the yards. Today, you would not believe the horrible conditions by which these animals are raised. If you go to Google Video and search for "Meet Your Meat," you can view a 12-minute video narrated by Alec Baldwin, and produced by the People for the Ethical Treatment of Animals, (PETA) that shows very graphically just how horribly we treat farm animals. If you watch that video, you will see how chickens are crowded into cages so small they cannot even fully extend their wings for their entire lives. You will see pigs, who happen to be more intelligent than dogs, confined in cages so small they cannot even turn around for months at a time. The degree of

abuse is unbelievably horrible. We should stop eating meat simply because we would be healthier, and live longer, if we did. But, we continue to torture these animals because we refuse to even look at what we're doing. If we were to see our treatment of animals squarely for what it is, we would have to recognize how horribly we've been acting, and how cruel and callous that makes every one of us who condone and abet this cruelty by eating meat. That is the only conclusion we could honestly reach. If we were to view all of this from the understanding that what we're doing is completely compelled – and in no way up to us – then we could perhaps justifiably blame the universe, or whatever, for compelling us to commit such cruelty. That perspective would render us innocent, and when we're no longer holding ourselves responsible for such cruelty, we will then hopefully, through compassion, squarely face the cruelty that is being done through us, and stop torturing those animals.

Our free will-derived sense of responsibility likely prevents us from truly seeing the extent of our cruelty. The sad irony here is that the universe has caused us to torture these animals. God willing, this same universe will hopefully soon make us understand that we don't have a free will, and compel us to be much more compassionate toward all animals on our planet. To the extent that we overcome the illusion of free will, we will create a new world. It would be like a neo-renaissance, multiplied tenfold. We're perpetually at each other. Our coming to understand, and behave according to the understanding, that we don't have a free will would lead us to sit down with each other, and rationally consider the matters before us. "Why did the universe compel you to do wrong?" we might ask our friend. S/he might respond, "Not so fast; the universe is apparently compelling me to conclude that what I did was not, in fact, wrong." Basically, the conversation could proceed as a cooperative, rather than blaming, venture, with each of us trying to figure out if a wrong was, in fact, done, and what to do about the matter from a practical standpoint. Understanding free will as an illusion would also lead to our understanding that the way we treat our children in school, especially when they are young, makes all the difference in the world to their, and our, future. In computers there is a principle called GIGO, which is an acronym for "garbage in, garbage out." This principle also applies to how we instruct our

children. To the extent we understand that what we are basically doing with child-rearing and education is programming our children to behave in certain ways, and not others, we will take more time, and devote more effort, to teaching them how to be happy, and how to be good.

10. Why Change as the Basic Universal Process Makes Free Will Impossible

Our civilization, and mindset, and personal lives are all founded on this notion that we human beings can freely choose whatever we want – that we have a free will. The problem is that we don't, and apart from our seeing reality completely contrary to the way it is, our belief in free will causes problems both in our personal lives and societally. Hopefully by our understanding that our wills are causal, and not free, we can create a more compassionate world. Before I get into our topic, I just want to go a bit more into what we mean when we say we have a free will. Basically we mean that our thoughts are completely up to us – there is nothing compelling us to decide what we do. We mean that what we do, what we eat, what we say, and what kind of work we do – everything – is completely up to us. Naturally, we have an unconscious that is always active, and makes free will impossible. But, the more basic reason why we don't have a free will is the process of cause and effect. This chapter is about the fact that everything that happens in the world, including our decisions, has a cause. If everything has a cause, then whatever causes us to make a decision will have a cause. And there will be a cause of that cause, and a cause of that cause, etc. Note that a cause will always precede its effect. A cause can never come after its effect. When we consider this chain of cause and effect that leads back further and further into the past, we can see how the causes that ultimately led up to any kind of decision we might make were made long before we were born, and long before the planet was created.

Consider that the first fact of existence – and this is undeniable, a priori, and axiomatic – is that the universe exists. Everything exists; we are here. The second a priori fact is that the basic process of the universe is change. Think about that. If the universe didn't change, everything would be completely frozen. I wouldn't have written, and you wouldn't be reading, this book. Planets like our Earth would not be rotating around their axis, and revolving around stars like our Sun. If there were no change, nothing would move. There would not be a world, as we know it. We have a priori knowledge that the universe exists, and a priori knowledge that the fundamental process of the universe is change. What is change? Change is something moving from one state to another. Change is a particle being at one point at one moment, and then at another point the next moment. That is what change is. It is matter moving through space in time. At one moment, you'll have a particle or something at a certain point, and then at the next moment, because of change, it will be at a different point. That's change. Two axiomatic facts - reality exists, and reality changes. What pulls this all together, and what makes free will impossible, is the idea that in order for change to take place, there has to be causality. In fact, causality is the process that allows for change. No change could ever happen without causality. There is a statement to the effect that "nothing can be causa sui," meaning that nothing can be the cause of itself (unless we want to perhaps consider that God, as the first cause, is the cause of Her/Himself). But after that, every other cause has to have a prior cause. It's not necessary to know the first cause, if it exists, to understand the process of causality that operates thereafter.

If you have causality – cause and effect – as the process that is required for any change to take place in the universe, you can understand how causality is as axiomatic as the fact that there is a universe, and the fact that the universe changes. I say this to clarify a confusion that has arisen in physics since 1927 when Werner Heisenberg published his Heisenberg Uncertainty Principle. Basically it's a mathematical equation that demonstrates that you can't at the same time measure the position and the momentum of a quantum particle with the precision required for successful prediction using classical mechanics. If you measure the particle's position, then its momentum becomes less clear. If you measure the

particle's momentum, then its position becomes less clear. That's the basic Uncertainty Principle, and it applies to other conjugate variables like particle spin, particle charge and particle phase. For some reason that doesn't really make sense, this discovery led some physicists, most notably Niels Bohr and Werner Heisenberg, to formulate what came to be known as the Copenhagen Interpretation of quantum mechanics, and conclude that since we can't measure simultaneously position and momentum, or two of other conjugate variables, somehow these processes are uncaused.

It is important to see that if the universe exists as an axiomatic fact, and change is axiomatic, causality must also be axiomatic. Again, otherwise everything would be frozen. If causality is necessary, and describes change, obviously causality is as fundamental a fact of nature. In other words, this explanation of causality is at a much more fundamental level than interpreting the results of the Heisenberg and stronger, more recent, uncertainty relations. There is more to it. It has never been shown in any way that something could be uncaused. Think about it. Change requires causality. This can be demonstrated through certain laws of physics. For example, there is a Law of Conservation of Mass-Energy. This law has never been violated. When one particle interacts with another particle, there is an exchange of mass-energy. One particle will gain mass-energy, and the other will lose mass-energy. Again, that conservation law has never been violated. If one particle gains mass-energy, then the cause of that gain has to be the interaction with the other particle.

A problem with that conservation law may arise when you consider matter in terms of either mass or energy. Mass-Energy is what Einstein explained the universe as in his theory of Special Relativity. It's the idea that mass and energy are actually one. $E=mc^2$ where "E" means energy, "m" means mass and "c²" means the speed of light squared. That gets a little confusing because apparently there have been some seeming violations of conservation of mass, and some seeming violations of conservation of energy that make this law appear less ironclad. But, there is another conservation law in physics, which came out of Newton's Laws of Motion. This is the Law of Conservation of Momentum. When a particle is moving through space, it has momentum. Momentum means velocity and

direction. So, when a particle is at one point, its momentum at that point will determine its position at the second point. You can never lose momentum. If one particle interacts with another, momentum is always conserved. That we have this law of conservation of momentum that requires causality is another proof at the most fundamental level of physics that causality is the process for change – is the basic process by which events happen. Another law of physics that I think is obvious to us all is that matter moves through space in time. Time is what allows for change. If there was no time, there could be no change. So, you have a particle at one point at a certain moment in time, and since everything is moving, it will be at another point the next moment in time. This movement applies to every particle on Earth. The universe is expanding. So, our whole solar system and Milky Way galaxy are expanding outward. The Galaxy is expanding toward a region of the universe called the Great Attractor Anomaly. And, our solar system is moving in time as it revolves around the Milky Way Galaxy. There are various kinds of motions that are always happening that include every particle and every part of the Earth. This motion all requires time. Time is what allows change. It's what allows causality to happen.

Another axiom in physics is that there is an arrow of time, in the sense that time will always go from past to present to future. It will never go from future to present to past. The reason I say that's axiomatic is because there has never been a known violation, and because it is so obvious. In physics, there are certain kinds of theories and equations that are deemed symmetrical, in the sense that they allow, mathematically, for time to travel backward. But, when you think of these kinds of equations and theories, you have to remember that mathematics is a measuring tool. It is not a descriptor of the nature of reality. It helps physicists come up with measurements of reality to then reach their conclusions. With mathematics, you can subtract two from one and get a negative one, but that doesn't mean that you can subtract two apples from one apple and get as a physical entity a "negative apple." Negative apples do not exist in reality. That is why I say that although there are equations that allow for time to go backwards, it's just the math. It has never been demonstrated, and is clearly impossible.

One of the claims for free will is that our mind is not physical, and so our thoughts are not physical. Some say that if our thoughts are not physical, then that means that maybe they are not caused, and maybe they are the result of a free will. The problem with that assertion is the existence of time. Let's say we make a decision, and we call it "spiritual." We say it doesn't have a physical presence, however that decision would have to take place within a moment in time. It has a precise position in this timeline that goes from past, to present, to future. Naturally, if it has a precise moment in our timeline, it is completely subject to the causality that governs everything else in the universe. Let's say we make a decision. We define it as spiritual, but it happens in the present moment. We should realize that the present moment – anything that happens in the present moment – is the complete result of the state of the universe at the previous moment. Naturally, if we have a spiritual decision taking place at a certain point in time, and thus being caused by the state of the universe at the prior moment, and that state being caused by the state immediately before that, we now have a causal regression that leads back presumably to the Big Bang, and who knows what happened before. Defining decisions as not being physical does not allow for a free will because any decision we make, and any thought we have, occupies a specific point in time, and time is causal.

I want to now consider randomness, or indeterminism, defined as acausality. It's greatly perplexing how otherwise brilliant people have proposed this hypothesis. My guess is that physicists like Bohr and Heisenberg were more than "shut up and calculate" researchers; they were also interested in the fundamental nature of reality. It's likely they had an interest in the question of whether our human will is free or not. My guess is that it was this philosophical interest, which to some physicists meant finding a way to preserve the notion of a free will, which led them to reach incoherent, internally inconsistent, conclusions, like the idea of acausality, that basically make no sense. Sometimes we understand randomness in the sense of having a deck of cards, and picking one "at random." This is more accurately described as "apparent randomness." What some physicists mean, however – and what's actually taught in many college level physics courses – is the Copenhagen Interpretation of quantum mechanics that considers elementary particle behavior as

random in the strong sense of not having been caused. Think about the concept of randomness in that sense of something happening that is not caused. It doesn't make sense. There is a cause to everything. Things do not just happen for no reason, and without cause.

Let's say something was to "just happen." Let's say a particle could just come into existence out of nowhere. A particle is somewhere, when a moment earlier it was nowhere. That too would be a causal process, and you cannot rationally consider the coming into existence of the particle as random. Sometimes physicists will say to themselves, "I know everything that is happening in this system." For example, with radioactive decay, for isotopes that have a half-life, meaning they will decay at a certain rate and within a specific window of time – physicists cannot predict exactly when a single isotope will undergo this decay. So, for many years some have claimed that since we can't predict its behavior, it can't have a cause, and that it must be random in the strong sense meaning acausal. I trust you understand the illogic of that conclusion. There is no true randomness, in the sense of events happening without a cause. Everything has to be caused. Another reason some physicists, philosophers, and psychologists became confused regarding this matter involves a statement by Pierre-Simon Laplace, who was a famous French mathematician and physicist. He penned what came to be understood as the classic statement describing determinism, or causality. He essentially said that if we knew the position of every particle in the universe, and every force acting upon every particle, and if we could compute that data, we could know both the past and the future. Nothing would be hidden from us. In his own words:

We may regard the present state of the universe as the effect of its past and the cause of its future. An intellect which at a certain moment would know all forces that set nature in motion, and all positions of all items of which nature is composed, if this intellect were also vast enough to submit these data to analysis, it would embrace in a single formula the movements of the greatest bodies of the universe and those of the tiniest atom; for such an intellect nothing would be uncertain and the future just like the past would be present before its eyes.

What confused some is that because we can't simultaneously measure the position and momentum of a particle, and therefore can't know the position and force acting upon every particle, (and more generally, because we can't know everything in the universe) we can't make such predictions using either classical or quantum mechanics. Somehow, that realization led some physicists to conclude that there is such a reality as indeterminism, defined as randomness, or acausality. Whichever term you want to use, these physicists are claiming that some things are simply uncaused. Sometimes physicists will define randomness as unpredictability, but that is a slight-of-hand assertion because when they are asked what they mean by unpredictable, they ultimately equate it with acausality. Bringing all of this back to the question of human will, if the universe exists axiomatically, and if change is the fundamental process of the universe, without which nothing can happen, and if causality is necessary to all change, then causality is the fundamental process in nature. If everything has a cause, that means that every one of our decisions has a cause, and that cause has a cause, and that cause has a cause. That is a very powerful way to understand why free will is impossible.

11. The Absurdity of Varying Degrees of Free Will

Let's consider the absurdity of the claim that we humans have varying degrees of free will. Some philosophers and psychologists assert that while we may not have a completely free will, we have a free will in certain respects. We'll be exploring that assertion, but before we do, I want to go through a brief description of what we generally mean when we say we have a free will. In essence, what we mean by free will is that our decisions are completely up to us. Nothing that we cannot control is compelling our decisions. Nothing that is not under our control would be either taking part in our decisions, or making them completely for us. Right from the start, we can understand that because we have an unconscious that is always awake and active, free will is impossible. If the unconscious is taking part in a decision, that decision is not free from its participation. Again, if the unconscious is making the decision completely – which is the most accurate description for how all of our decisions are made – that decision cannot have been freely willed.

Some philosophers and scientists understand why we can't have a completely free will. For example, they understand that fifty percent of our personality is genetic. But, they will assert that we have a certain amount of free will, or a partially free will. There are two types of partial free will that they wrongly conclude are possible. The first is the idea that while not all of our decisions are up to us, some of them are. The second type of partial free will they claim we have is that the decisions we make are partly up to us.

They claim that those decisions may be partly up to other factors, but they are also partly up to us. Let's examine these two claims in detail to see whether or not they make sense, and have any evidence to support them. Let's begin with the first one that not all of our decisions are freely made, but some of them are. Here's where the unconscious comes in. We've talked about this before, and it's *the* answer to why even a partially free will is not possible. Our unconscious is always active. There is a part of our unconscious that controls our bodily actions like breathing, circulation, and all of our internal organs. Part of our unconscious is constantly awake controlling all of that biology. Because our unconscious is also awake while we are sleeping, it is actually more a part of our experience than is our consciousness, which is active only while we're awake.

As far back as Freud and the hypnotists, we have empirically understood that there is an unconscious. We have understood that this unconscious is really responsible for many of the decisions – most precisely, all of the decisions – we generally attribute to our conscious will. In neuroscience and psychology today, researchers are demonstrating this with more and more hard evidence. Before this, a researcher would hypnotize a person, and give them a post hypnotic suggestion. When the person was no longer under hypnosis, s/he would perform the post-hypnotic suggestion. The way researchers determined that the post-hypnotic action was done by the unconscious, rather than by the person's conscious will, was to ask the person "why did you do that?" The person would then confabulate some kind of reason, but the reason would not reveal the understanding that they did what they did because of the post-hypnotic suggestion while under hypnosis. Other experiments reveal our unconscious will through priming. Subjects in an experiment are given words that will cause their unconscious mind to focus on a certain kind of behavior, and they are evaluated, or they perform a task while primed with those words. It turns out that the priming is responsible for what they do or don't do.

When we say what we say, or decide what we decide, we have to rely on memories. We can't make a decision with no data upon which to draw on. We can't say anything without there being a collection of words in our unconscious memory bank from which to

draw for our sentences and paragraphs, etc. Remember, the term free will means that we would be able to make our decisions *completely* free of anything that is not in our control. Think about it. We have an unconscious that is the storehouse of all of our memories – all of the words that we know, our reasoning processes, and our morality. Because this unconscious is something that we're not, by definition, even aware of, we're obviously not in control of it. There is no way for us to, in real time, control our unconscious. So, to make every decision we make, we have to draw on an unconscious part of us that we can't control. The words that I'm saying right now are just coming out of me. My unconscious is leading me to say what I say. My conscious mind then becomes aware of what I'm saying, and, to the extent I've been conditioned to believe in free will, wrongly concludes that it made the decision. Whether we see the unconscious as controlling the very decision itself, as many experiments in hypnosis have demonstrated, or as taking part in the decision, we can't, therefore, have a free will.

Especially since Freud popularized it, we've come to understand that part of our mind is unconscious and is not, therefore, in our control. That seems a very easy way for us to understand the logic of why we don't have a free will. But, the fundamental reason we don't have a free will is the law of cause and effect. Everything that happens has a cause. Nothing can happen without a cause. This has been known since Leucippus, who at about 500 B.C., wrote, "Nothing happens at random, but everything for a reason and by necessity." If everything has to have a cause, this means that every one of our decisions has to have a cause. It doesn't stop there because if everything has a cause, then the cause of every one of our decisions must have a cause, and the cause of that cause must have a cause. What results is a chain of cause and effect that spans back to before we were born. Things that happened before we were born, and before the planet was created, determine what's happening at this exact moment, and what will happen in the future. How does all this apply to the claim that some of our decisions are freely made? To answer a question with a question, how could it be that some of our decisions are subject to this law of causality, and others aren't? That's why I say that the notion of varying degrees of free will is absurd.

Let's further explore the second claim, that part of every decision we make is in our control, and thus, freely willed. Imagine yourself writing a report, raking leaves, doing dishes, or whatever you're doing. There is a part of your mind, namely your unconscious, that insists on both taking part in your decision, and in the actual doing. If that is the case, you can't rightfully say that either the decision to do something, or the doing of it, is the result of a free will. A part of your mind that you can't control is insisting on participating. The unconscious never sleeps. To the extent that it is not making the decision completely (it actually is, as we're just beginning to demonstrate in neuroscience and psychology) the unconscious is certainly taking part. If we have to draw on our unconscious for the concepts – the building blocks, the words, the memories – upon which we're going to make our decision, then obviously that unconscious is going to, at the very least, take part in every decision we make. You may want to conclude that part of our decisions is up to us, and part of them is up to something else. However, the part of any decision that was up to us would have causes. It couldn't escape that law of causality that governs everything. If we claim that part of our decisions was up to us, we confront the following kinds of questions: What was the reason for that decision? What caused us to have that reason? It's not that we can always know completely what the causes are, especially once you go back three or four steps in this chain of cause and effect. We're usually just guessing at what the causes are. We start out with the fact that everything must have a cause because things can't happen uncaused. Think about what it would mean if some of our decisions were uncaused, and not subject to this law of causality that governs everything. Clearly, if a decision of ours is not caused – if it is random or indeterminate – it can't have been the result of anything, including a free will.

When we say free will, what we mean is that our decisions are be up to us, and we can take pride in, and feel accountable for, them. A free will decision is presumably one for which there would be our own autonomous reasons. Asserting that we have a free will is akin to asserting that our will is free of causality, free of any kind of reason, and free of the self. It's easy to see how the term "free will" is incoherent, and doesn't really make sense. Whether philosophers, psychologists and other thinkers make the assertion

that some of our decisions are freely willed, or that some parts of our decisions are freely willed, because we have an unconscious, and because our world works according to cause and effect, these assertions are simply mistaken. Let's say we understand and accept this inescapable truth that free will is impossible. What does that mean to our world? Many of us genuinely understand the science and logic of the conclusion that free will is impossible. But, we're sometimes reluctant to accept it, in part because we're all, very ironically, conditioned by the causal past to believe we have a free will, and to take pride in this notion. We've been conditioned to not want to relinquish this belief so easily. Some of us are reluctant to live our lives and restructure our civilization according to the truth of our causal and unconscious human will. We fear that if we all understood that free will is an illusion, and everything is truly fated – that we're instruments of God, doing the will of God, or more secularly, that we're robots, or computers, doing exactly what we're programmed to do – civilization would collapse because many of us would say to ourselves, “if I'm not morally responsible for anything, then I can do anything, and can't justly be held accountable.”

That's really not something we need to fear because one of the ways nature has conditioned us is that we are hedonic creatures. We seek pleasure and avoid pain. That is an imperative that, incidentally, controls every decision we make. A second imperative we're hard-wired for is that, at the time we're doing anything, we consider it to be the most moral of our available choices. In hindsight, or to others, it may clearly seem wrong. Our moral imperative always compels us to do the greater of two or more goods, or the lesser of two or more evils. We as individuals and we as a planet – would not allow anarchy to reign just because we understand that we humans do not have a free will. For example, let's consider that everyone in our family and everyone we know completely understood that free will is an illusion. Everything is a movie and we're all programmed. We've obviously been programmed to occasionally upset or hurt one another – to say or do what is offensive, aggressive, or threatening, to each other. If we really had a free will, we'd all be perfect angels, and we wouldn't be aggressing against anyone as a result of having blamed them for something. But to the extent that reality, or fate, or God, compels us to see free will as an illusion, and understand that everything is

actually predetermined, we wouldn't have a logical reason for blaming others for anything. We would begin to explore why fate is doing this to us, understanding that our blaming or aggression is really an offense by fate against both the *blamer* and the *blamed*.

Under the notion of free will, we are all competing with and against each other as adversaries. But when we understand that free will is an illusion – that everything is fated – then all of the sudden our friends and we are on the same side. We're no longer competitors; we're cooperators in trying to find an answer to why fate is disturbing our relations. If you want to look at this from a theological standpoint, there's the idea of Satan, who is responsible for creating unnecessary problems for us on the planet. From this perspective, the notion that we humans have a free will is probably one of his prime strategies for advancing his agenda. If Satan has everyone at each other, accusing ourselves and each other for what we're not responsible, then we're not going to be as focused as we would otherwise be on solving the issue at hand in the best, and most intelligent, way. Think for a minute about how amazing it is that our civilization – humankind – is so completely confused about the second most fundamental aspect of being a human being, (the first aspect being that we exist). This second aspect is the matter of why we do what we do. Who is all of that that up to? For us to conclude that it's up to us rather than the causal past, or God, or all of these influences that come together completely independent of our control, is bewildering.

To the extent that we see free will as an illusion, I would hope that we can create a much more intelligent world. Consider how much harm our world is subject to because we blame each other and ourselves, and how profoundly our world could change through our understanding the true nature of reality and human will. It would be unprecedented. It would arguably be the biggest change ever in human history. We've had democracy, and various religions, but this evolution of our consciousness would be much grander and influential. It would be change on a scale that humanity has never before experienced. Life is, and can continue to be, wonderful with our continuing to hold the belief that we have a free will. But to the extent that we understand that everything is really a movie – that what I'm saying right now, and what you're reading right now, and

what you did earlier today, and plan to do tomorrow, and everything we ever do is completely predetermined – that understanding can make our lives so much more wonderful, in the most literal sense meaning full of wonder.

12. Why the Concept of Free Will is Incoherent

Let's talk about why the concept of free will is actually incoherent, in that it is logically and internally inconsistent – it just doesn't make sense as a rational construct. Our world is virtually completely deluded about the fundamental nature of our human will. We're completely deluded about who we are as individuals, and as a humanity. This has been the case for several thousand years. We've structured our entire civilization – our criminal justice system, our socio-economic system, our interpersonal relations, and our relation to ourselves – on an illusion. For us to be guided by the truth of who we are, and the truth of why we do what we do, has to be a wiser, and better, way of conducting ourselves in our world than by living under the illusion that we have a free will. When we say we have a free will, we generally mean that what we do, and think, and say, and feel is completely up to us. In other words, nothing that is not in our control is either making these decisions for us, or taking part in the decisions. When you look at it logically, you quickly realize that such a free will is impossible. We have an unconscious that is the storehouse for all of the words we draw on when we think and speak and make decisions. Obviously, we can't have a will that is free from that unconscious. The unconscious must be part of every decision because it contains what we base our decisions on. If our unconscious is not something we're in control of – because by definition it is unconscious – that very clearly demonstrates why we don't have a free will. There are other ways to demonstrate this, but for now let's focus on why the very concept of free will is simply incoherent.

To have a free will would mean that our decisions would be completely free of anything. For example, how could our decisions be free of our memories – of what we’ve done in the past? When we make a decision, whatever the decision is, we have to base it on something. Sometimes we’ll say that we can make a completely intuitive decision that we don’t at all think about. We just make it. But, when we make a decision like that, there is a reason for it. It’s happening at the level of the unconscious. Let’s explore this. Let’s say there was such a thing as reasonless intuition. You want to make a decision that is not based on anything. That decision could not be freely willed, according to what we mean when we assert that we have a free will. When we say we have a free will, we mean that it’s something we can take pride in, and for which we will hold ourselves and other people accountable. Let’s consider morality. We are hard-wired to seek to do good. We have a moral imperative, and that is one reason we don’t have a free will. But, if our moral decisions were not based on moral lessons we must obviously have learned, how can we reasonably say that these decisions are ours completely?

The concept of free will is something that evades and ignores, and chooses not to consider, the very fundamental process in nature. When we say we have a free will, what we’re saying is that our will is free of causality. To say we have a free will is to say that what we decide is free of a cause. Since every cause has a cause, the cause of our decision would have a cause, and suddenly we find we have a causal chain stretching back to before we were born. That’s why the concept of free will is incoherent. You can’t have things that happen without a cause. For the sake of discussion and exploration, let’s say that something can actually happen without having been caused. If that something was not caused, there is only one other option. The decision must be random, or indeterministic in their strongest sense of being uncaused. It has no cause at all; it just happens. If our decisions are just happening for no cause, or reason, that is not what we mean when we say that our decisions are freely willed. When we claim that we have a free will, we are claiming that we can take pride in, and are truly accountable for, our decisions. If our decisions are uncaused – if they are just random – they are not up to us. By its strongest definition, randomness means that

something is not up to anything. The reality, however, is that everything must have a cause.

How did we come up with this concept of free will? In the West, we didn't always have it as a clearly defined construct. The term "free will" is actually Christian, although the concept has its counterparts in other non-Christian parts of the world. In Romans 7:15, the apostle Paul writes that he wants to do what is right and good, but he finds that he sometimes can't. This is the first statement in Christianity that questions the notion of a free will. Paul is asking – wait a minute – if I want to obey God's laws and be moral, and I find that I can't, what's going on? It's not until about 380 A.D., when Augustine of Hippo begins to grapple with the question of who's responsible for the evil we do that Christianity adopts the doctrine that if God is defined as all-good, then the evil we humans do must be up to us, and not God. Augustine actually wrote a book back then titled *De Libero Arbitrio*, which translates as *On Free Will*. He coined the term free will to explain how any evil in the world would have to be up to human beings, and could not possibly be God's doing. That's how the idea of free will in Christianity came to be. It was an explanation for the existence of evil in the world. If God is all-good, then all evil must be our fault. But the belief in free will is also a point of contention in Christianity because there is a phrase in Isaiah 45:7 where God says, "I form the light, and create darkness: I make peace, and create evil: I the Lord do all these things." Augustine was apparently discounting or ignoring that particular passage.

As incoherent and illogical as the concept of free will is, its origin within Christianity may explain why it hasn't been successfully challenged until now. Many Christians believe that when we die we may go to a place of eternal suffering and damnation. According to Christianity and some other religions, what we believe may determine where we go in the afterlife. Naturally, when people are faced with the contradiction of decisions free of the past, and memories, and how we were raised – factors that we cannot control – many of them choose not to explore this problem because of their fear of spending the rest of eternity in hell. We're now in a world where many of us believe in God, but far fewer of us believe that, for example, the first woman was taken from the rib of the first

man, or that our world is less than 6,000 years old, as the Biblical chronology asserts. We're now living in a world with the Internet, and relatively free exchange of information. We can now easily download from the Internet papers by scientists that demonstrate, for example, that decisions we believe we are freely making are actually made by our unconscious. Through the process of priming, researchers can make us behave in certain ways, and make certain decisions, without our even being aware of the experimental manipulation.

Advertisers do this to us all of the time. When you see the same commercial on TV, that's exactly what they're doing. They understand that we don't have a free will, and they condition us to behave in ways they would prefer. This is another reason why this issue of human will is important. Conditioning by marketers is real, and advertisers have refined this science to a scary, Orwellian degree. They really can make large portions of the population behave in various ways, in a way that is also unconscious to those consumers. If you believe in free will, you will say to yourself "no, advertisers cannot control our buying habits and choice of products because we have a will that can over-ride all of that conditioning." When you understand that we don't have a free will, and that what we do, and what we buy or don't buy, is based on the information we have, and how we acquired it, then you'll understand why it's important for us to appreciate that free will is an illusion. It's important to acknowledge the forces that mold us, and lead us to do what we do, if we allow them. The concept of free will, when you think about it, is internally inconsistent. It's not logical. If you define the will as volition, or that part of our mind or self that makes decisions, and you say that volition is free of what it can't control – free of causality, free of our memories, free of how we're conditioned. The definition just doesn't make sense. Essentially, the term free will means that we are doing what we're doing, and saying what we're saying, and thinking what we're thinking, completely of our own accord. By logical extension, that belief leads to the conclusion that we do all of what we do for no reason. As soon as you say "I made this decision of my own free will *because*, for example, it was the right decision, or *because* I wanted to be a good person, you've introduced a cause. You've introduced the chain of cause and effect. Once you say you've made a decision because of

something – because of anything – then you must acknowledge that that cause has a cause, and that cause has a cause, etc.

A good way to understand cause and effect is to look at the state of the entire universe. Consider everything - which means every particle, every person, every planet, and every galaxy – that exists at this very moment. It has to be the complete result of the state of the universe at the previous moment. The universe evolves from state to state through time. The universe is in a certain state during one moment, and through the process of change, or cause and effect, it evolves to its state at the next moment. It can't but do that. If the universe is all there is, the universe is the only explanation for every next moment of the universe. You can only explain the state of the universe at one moment by understanding that the previous moment is the complete cause of it. There is nothing else to cause it. The universe is a singularity. There is only one. If you claim you are making what you consider to be a freely willed decision, and you're making it at a certain moment in time, but the state of the universe at the previous moment is completely determining the state of the universe at the moment you make your decision, then that previous state is obviously determining your decision. The moment-by-moment states of the universe form a chain of cause and effect that stretches back in time to before our planet was created, and before the Sun was created, and presumably, to the Big Bang about 13.7 billion years ago. By understanding that our universe evolves in a moment-by-moment fashion, according to its state during each previous moment, you can understand that our human will cannot possibly be free from that causal progression.

Why is this important? Our world right now is facing a very challenging era that will last decades. Much of what we face is about climate change. There is one international scientific body or institution that is responsible for compiling and analyzing all of the research on global warming and other manifestations of climate change. It's called the Intergovernmental Panel on Climate Change, (IPCC) and this United Nations organization is comprised of over 3,000 scientists from over 100 countries. Their last major report was published in 2007, but if you saw Al Gore's 2006 documentary, *An Inconvenient Truth*, you have some idea of what we're up against. The very challenging part of all of this is that back in 2007 when the

IPCC published their most recent findings, scientists had concluded that the level of carbon dioxide concentration in our atmosphere that we must be under by the year 2050 in order to avoid catastrophic, and very likely irreversible, consequences was 450 parts per million, (ppm). A few years later, however, some scientists realized that this assessment was far too optimistic, and that the actual level of carbon dioxide in the atmosphere that we need to remain under to remain relatively safe is 350 ppm. What is scary is that we're already over 400 ppm, and the carbon dioxide concentration is rising by over 2.7 ppm each year. We face a monumental challenge. As an optimist, I would expect our human race to rise to it, but as a scientist and a thinker, I understand that we will not have a chance of meeting that 350-ppm target unless we profoundly, and dramatically, change the nature of our civilization. It's actually more serious. In 2007 when the IPCC made that assessment, they did not consider the effects of the melting of the polar ice caps, or the methane that is currently in the permafrost, and gets converted to carbon dioxide and released into the atmosphere as this frozen layer of ground thaws. There is apparently more carbon dioxide in the permafrost – which covers vast areas in Alaska and Russia among other places – than has already accumulated in our atmosphere.

If we want to address those challenges, we will need to stop competing with each other, and we will need to stop thinking that we deserve so much because we did so many great things. We need to start working together. There is absolutely no way that we can adequately address the threat of climate change unless we work together. For example, if China, India, Brazil and Europe were to do their part, but we in the United States did not do our part, we would not be doing nearly enough. If we in the United States did our part, but those other countries did not do their part, we would not be doing nearly enough. It must be a global effort. There are other reasons why I think this issue of human will is important, but climate change will remain a supremely important reason for at least the next several decades.

13. Overcoming Blame, Guilt, Envy and Arrogance by Overcoming the Illusion of Free Will

When we believe we have a free will, we hold each other and ourselves accountable. To the extent that we can overcome this illusion, we will not blame each other, feel the pain of guilt, and envy others. When we do good, we won't feel arrogant; we'll feel grateful. That's on a personal level. Consider how overcoming the free will illusion would affect how we treat each other as countries, and groups of people. This illusion of free will has profound and global consequences, which is why it is important that we take steps to re-construct our society in a way that will adhere to the reality of our causal and unconscious human wills, and thereby help us in many ways. When we say we have a free will, basically what we're saying is that what we do – what we decide, think, feel – is completely up to us without anything that is not in our control compelling us to do what we do. For example, let's say we claim that our feelings are completely up to us. If free will means that we can freely choose to feel what we want – then who among us would choose to feel negative feelings? Who among us would choose to feel anything but blissful every hour of every day? If having a free will means that we could make our moral decisions completely up to us – that we could be as good as we would want to be – who among us wouldn't be a perfect angel? Who wouldn't be good, and do good, all of the time, especially toward the people in our lives? Considering those questions is a very good way to understand why we obviously do not have a free will. Free will is an illusion. It's

something that we've actually been predetermined to believe. It hasn't been up to us that we believe this. Nature had us hold the illusion that the world is flat. We held that illusion for a long time, and now we know we're living on an orb. But this free will illusion is much more important. We can conduct our every day affairs very well, regardless of whether or not we believe the world is flat. The belief in free will affects us much more profoundly. Under this illusion of free will, we hold ourselves accountable. When we or other people do what is wrong, we blame, and indict, and prosecute, and condemn, and punish ourselves, and each other. When we do good, we take pride. But pride often leads to arrogance, and comparisons. "Because I did this, I'm better than you," we boast. We look down on others, and that's not good for our personal relations. When other people do good, we sometimes envy them. We don't realize that what we're envying them about wasn't really up to them. They were lucky, in a certain sense. That is simply the way nature compelled them to be.

Let's examine these matters one by one, and the actual harm that the illusion of free will causes every day at both personal and societal levels. Somebody does something wrong. The belief in free will leads us to blame them. It leads us to say that they, of their own free will, did some wrong toward us. With the illusion of free will, if we are ascribing complete accountability to that other person, and we're blaming them, we very likely see them as our adversary. We're in competition with them. We may seek vengeance and retribution. We may seek to punish them because they did wrong. That's what happens when we ascribe free will to others. So, what happens when we understand that the other person who did whatever they did toward us had absolutely no choice in the matter? They were completely compelled in what they did. It wasn't up to them. To the extent that we can understand that, we become more compassionate. Let's say, for example, that someone takes another person's hand, and pushes it so that the hand knocks into you. Are you going to blame the person whose hand someone else took and knocked into you, or are you going to blame the person who took the other person's hand and knocked it into you? Naturally, it's the latter. When you understand that nobody has a free will, and that free will is, and always will be, an illusion, if you become angry, you're not going to become angry with that person. You won't wish to

punish that person, or seek vengeance. You may become angry with the universe, or God, but you're not going to be angry with that person. When you don't become angry, and don't blame that person, you suddenly find that they and you are on the same side of the equation. If both the other person and you realize that neither of you have a free will, you might then ask yourselves "why would fate, or God, or the universe, or the causal past, do this?"

What happens is that your relationship with the other person is preserved. You and they are no longer adversaries. You're on the same side, trying to figure everything out. I'm not saying that understanding that we don't have a free will will lead to everyone being open to aggression by others. For example, if someone aggresses toward us in a certain way, we may have to take certain measures, like separating ourselves from them, or whatever. But we would do this with understanding. It's a completely different experience to hold someone responsible for something, and address the situation from that perspective, than to understand that both they and you are victims of this fate. Another way to understand this is by considering a young child. When a young child does something wrong, we don't ascribe free will to them. They just don't know any better. They're obviously doing the best they can. So, what happens? We treat that young child with compassion, and kindness, and caring. If we take that same understanding that we naturally ascribe to young children, because we don't believe they have a free will, and we apply it toward each other, that becomes the more intelligent and compassionate way of addressing the matter. From a religious perspective, it makes forgiveness far easier because, in the final analysis, there is nothing to forgive. If the person really wasn't to blame, we might want to "forgive" them, but the understanding that they are not blameworthy truly means there is nothing to forgive. We now understand how coming to the understanding that free will is an illusion can help us to not blame each other, and help prevent the kind of conflict that blame causes.

Let's consider guilt. When we do wrong, we tend to blame ourselves. When we blame ourselves, we sometimes unconsciously punish ourselves in some way or another. That's the free will perspective. What happens when we understand that free will is an illusion? We do something wrong. Like in the first case, we come to

realize that it was wrong. Our conscience can recognize that we may have transgressed against someone else, or against ourselves, and make that determination without our punishing ourselves. In other words, we can say to ourselves, "Fine, I realize that I did wrong, but it wasn't my fault. I remain innocent." That, of course, doesn't mean we're going to continue to do that wrong, because once we understand that we've done something wrong, it's good, and right, and in our best interest, to correct ourselves. We don't have to punish ourselves. It would, in fact, be wrong to punish ourselves for what we could not help but do. Let's go to envy. Let's imagine you're watching someone do something, and you say to yourselves, "wow. I wish I could do that." With our free will perspective, we conclude that they did what they did of their own free will, and we just can't compare. That person is just much better at this. What does that lead to? It leads to feelings of lower self-esteem. It leads to our devaluing ourselves. Self-esteem is one of the four personality traits that correlate most strongly with happiness. To the extent that we diminish our self-esteem, we likely diminish our general well-being and happiness. What's the alternative? When someone has done something wonderful – a great discovery, or an amazing athletic performance – and we don't ascribe a free will to that person, we're much less likely to envy them. We might say to ourselves "I wish that fate, or nature, or God, had given me those kinds of qualities," but we wouldn't compare ourselves with the person in the sense of ascribing those qualities to the person's free will, and holding ourselves in lower regard as a result. It wouldn't make sense.

As we understand that we don't have a free will, we also prevent arrogance. It's good to feel good about doing something well, even when we know that it was not truly up to us. For example, when many sports stars are interviewed, they talk about how they were lucky in certain ways. They thank God, whom they consider to have worked through them. They are very humble in that way. But when many of us do something great, we think to ourselves "wow, I'm special! I did this of my own free will. I deserve the credit and rewards." The problem with that kind of attribution is that it naturally leads to our comparing ourselves with others. "I'm better than that person." "I deserve more than that other person." To the extent that we do that, we get disconnected from each other. This arrogance separates people. When we understand that free will is an

illusion, we understand that if we do something of value, we can feel grateful that fate is using us as an instrument for this act. But, there would be no logical reason for any kind of pride or arrogance. It is not “we” who are doing these things. We’re a vehicle, or instrument, of God, or fate. We recognize that we don’t have a free will, and although we did something great, we recognize that it’s really fate’s doing. Through this understanding, we remain humble. Our interactions with others remain on a more equal footing. We don’t sense ourselves as any better than others, and that helps keep us closer together.

Because there is cause and effect, and because we have an unconscious, and because if we had a free will, we would be completely happy and completely moral, we don’t have a free will. Then who, or what, are we to hold accountable and responsible? There’s an irony in this. Within the Judeo-Christian tradition, when something good happens, or we do something good, the proper response is appreciation and gratitude. “Thank God.” “Thank Goodness.” We say to ourselves that this good could not have been done without God. When we do good, we understand that, but when we do what’s not so good, all of the sudden it’s not God’s or fate’s fault. These religious traditions teach us that when we do bad, it’s our fault. That is the harm of the belief in free will. What’s the reality? When something good happens, it is the result of God, or fate, or the causal past, or the universe. When something not so good happens, again, it’s the result of God, or fate, or the causal past, or the universe. The remaining question is whether or not God, or the universe, has a free will? Personally, I hope that God or the universe is as completely compelled in what s/he does as we human beings are. Before I get into why I hope that, let’s get a bit into the idea of God.

I was raised in the Judeo-Christian religion, and I believe in God. I like the belief in God. However, some teachings certainly don’t make sense. Let’s say our belief is that God is all-good. We could then ask ourselves whether or not God can decide whether or not to be good. If s/he is all-good, it would seem that s/he would have to be all-good. S/he therefore can’t have a free will. Or, ask yourself whether God, if s/he so decided, could suddenly cease existing? Can God say “I don’t want to be God anymore. I’m outta

here,” and then everything just disappears? I don’t think so. If God is compelled to be good, and if God is compelled to be God, then maybe God doesn’t have a free will either. This question may be beyond our reasoning ability, at least for the time being. But if God, or the universe, doesn’t have a free will that would be good because there are some things in this world that are really bad, like the way we treat farm animals. You would not believe it. We basically torture them. To the extent that we don’t have a free will, we don’t have to blame ourselves for this atrocity, but I would hope that through compassion we would come to their rescue. Although we don’t have a free will, it seems that God, or nature, tends to reward us when we do good, and punish us when we don’t. Therefore, it would be wise for us to stop torturing those animals, along with lab animals and animals raised in pet mills. If God, or nature, doesn’t have a free will either, then we cannot justly blame God or nature for this cruelty. Granted, if we don’t blame God or nature, something must be responsible, and this prospect leads us into a conundrum wherein God would have to be responsible if God created everything. But to the extent that we hold God blameless, it would help us to be closer to, and less judgmental of, God. The illusion of free will does far more harm than good. Without it, we wouldn’t blame each other and ourselves. We wouldn’t feel that we were better than others. We wouldn’t feel arrogant. We wouldn’t punish ourselves when we did wrong. We would understand that we did wrong, and would hopefully try to correct ourselves. We also wouldn’t feel envious toward others. This would all translate to a much kinder, and better, world.

14. Why Both Causality and Randomness Make Free Will Impossible

Our belief in free will forms the premise for why we do much of what we do, and how we decide much of what we decide. It serves as a principle foundation for our civilization, for our society, and for our personal lives. In order to create a more understanding and intelligent world that is in line with the way things are, and isn't based on a misconception, we need to explore this matter, and overcome this illusion of free will. While it may take several decades, the purpose of this book is to help create a better world for everyone by helping us overcome this illusion. What do we mean when we say free will? Basically, we mean that our decisions are completely up to us, and that nothing that is not in our control is influencing, or compelling, us to make a decision. But, we all have an unconscious, and that our unconscious is where we store all of our data, memories, and thought processes. Every decision we make is based on words, concepts, memories and processes stored in this unconscious. The unconscious is not in our control. It's completely unconscious. That's why we call it the unconscious. If that part of our brain is actually making these decisions for us, we can't correctly claim we have a free will. Something that we're not in control of is making these decisions. Obviously, what we have is a causal will, meaning that it is caused. Everything has a cause. Nothing happens without a cause. Causality is the fundamental universal process. In order to have a free will, we would have to somehow circumvent causality, but we can't do that. Any decision we make has to have a cause, because we are making it for a reason.

The problem is that if we have a decision that has a cause, and that cause has a cause, and that cause has a cause, and you're going back in time in a causal regression that ultimately leads to before our birth, before the Planet was created, and to the time of the Big Bang, free will must be impossible.

In the late 1600s, Sir Isaac Newton created what we now refer to as Newtonian, or classical, physics. This theory is completely causal. We can measure the position and momentum – meaning direction and velocity – of objects, whether they are planets or objects here on Earth, and with that information, we can calculate their future. We can predict exactly where they would be moments, our years, later. When we track a comet through the sky, or track the other planets, we know exactly where they are going to be at any moment thousands of years into the future because these objects obey strict causal law. The obvious conclusion from this classical, Newtonian, physics is that free will is impossible because, again, everything has to have a cause. It was during the early 20th century that Werner Heisenberg, Niels Bohr, and a few other physicists developed what is known as quantum mechanics. Heisenberg published a paper in 1927 that described what we now refer to as the uncertainty principle. At the macro level, let's say we're measuring a basketball. We can fire photons at it, and, with enough precision for prediction, measure its position and momentum. Light particles do not substantially affect the movement of the basketball because the basketball is so large relative to the photon.

But, when we get to the quantum level of sub-atomic particles, this is not the case. When we fire one particle at another to obtain that measurement of position and momentum, the measuring particle knocks into the target particle, and thereby moves it into a different trajectory. The crux of the uncertainty principle is that we can't simultaneously measure the position and momentum of a particle. To the extent that we get the position more precisely, we lose information about its momentum. To the extent that we get its momentum more precisely, we lose information about its position. We can't any longer use classical mechanics to make predictions at the quantum level because of the uncertainty principle, so we rely on probabilities. We understand the behavior of groups of particles, and then develop probabilities for them. At the quantum level,

measurement changes from being a completely physical, direct, and clearly causal process to a statistical process, derived from probabilities for individual particles based on their causal behavior within groups. The problem for the proper understanding of human will came when those physicists then interpreted what it meant that you couldn't simultaneously measure the position and momentum of a particle. Bohr, Heisenberg, and a few others, came up with what came to be known as the Copenhagen Interpretation of quantum mechanics. What they claimed – and we can see the absurdity of it from the onset – is that since we can't simultaneously measure the position and momentum of a particle, particles don't simultaneously have a position and momentum.

They also claimed that because we can't see what is happening after a measurement, (once we measure the target particle, its position and momentum have changed because of the impact of the measuring particle) the particle's behavior was somehow uncaused. They claimed that particle behavior at the sub-atomic level had no cause. I read some writings by Heisenberg and Bohr, and of some of the other physicists who championed this interpretation, and learned that these guys were quite into philosophy. My hunch is that what they were trying to do with the Copenhagen Interpretation was to revive the idea that humans have a free will. They made these claims, but the best they could do with them was to assert that particle behavior at the quantum level is uncaused, or random. They claimed that these quantum level events happen for no reason at all – for no cause. The problem for the human will question is that if something is happening for absolutely no cause at all, it can't be caused by a human will, free or otherwise. If it's happening arbitrarily, or at random, obviously we are not causing it. For some phenomena, like this simultaneous particle position and momentum measurement, we don't know everything that's going on. With radio-active decay, for example, we can know the half-life, or rate at which a group of particles will decay, but for any given particle, we can't precisely predict when that radio-active isotope will decay, or transform, into something else. Because of that example, and because of the Heisenberg Uncertainty Principle, physicists and philosophers began to absurdly claim that this radioactive decay must be uncaused.

We've gone over how causality makes free will impossible. Let's go through it again, and then we'll go through why randomness also makes free will impossible in a bit more detail, so that we more clearly understand. We make a decision. Let's say our decision has a cause, and is not random in the absurd sense of uncaused. There is a reason for why we make a decision, for why we chose what we chose. Remember that everything has a cause. Nothing happens that is not caused. There was a religious argument about this many centuries ago about the Latin phrase "*causa sui*," meaning the cause of itself. They would ask themselves "if God created the universe – the world – then who created God?" Their answer was that God created Her/Himself. Let's say we accept that God, or the universe – the logic-transcending very beginning – caused itself. After that first cause, everything has a cause. The best way to understand this, as I've explained before, is to consider the entire universe at the state of the Big Bang, 13.7 billion years ago. The state of the universe at the very next moment in time was the exact and complete result of that first moment. What we have is particles moving sequentially through space in time. By bringing that state-by-state evolution of the universe causally up to the present, we can understand that everything that is happening now is a direct and complete result of the state-of-the-universe evolution. We can also understand this in terms of decisions. We make a decision. There is a reason for it. That reason is a cause. And there is a cause for that cause, and a cause for that cause, and a cause for that cause, each cause spanning further and further back in time. We see causality regressing into the past. Everything has to have a cause, and a cause must precede its effect. By definition, a cause cannot come after its effect. The cause is happening a moment before its effect, and the cause of that cause is happening the moment before that. If we follow that chain of moment-by-moment causes and effects, we can understand that whatever we're doing right now is the direct result of a causal chain that spans back to before planet Earth was created. There is obviously no room for a free will to emerge from within this causal chain.

Now let's address randomness. Randomness sometimes gets confused because it's given various different meanings. Here's one that makes sense. I have a deck of cards, and ask you to pick one out at random. What we understand that to mean is that you're going to

pick one out without giving it any thought. You're not going to count from the beginning of the deck to the one you want, or use any other system or plan for your choice. It will be arbitrary. That's the conventional, colloquial sense of randomness that we tend to use. In physics, however, there is a more precise technical meaning of randomness. Some physicists define randomness as something that is unpredictable. That's a mistake. Sure, randomness is unpredictable, but so is causality, to a completely accurate degree. Some physicists will say that unpredictable means unpredictable in theory, but not in practice. But, as human beings, with our subjective perspective on whatever it is we're trying to predict, we can't know all of the information necessary. We'd have to know the exact position and momentum of every particle in the universe to make a completely accurate prediction of whatever. Secondly, because of the uncertainty principle, we can't directly make those predictions. What is interesting is that our quantum probabilities would not work if the particle behavior being measured was not inherently causal. A single particle acting randomly, in the sense of unpredictably, and uncaused, cannot suddenly become causal when it joins other particles within a group. Some physicists say that randomness means unpredictability, but when we ask them "what does unpredictable mean?" they say that the particle's behavior is not being caused. Again, such an assertion is completely absurd, and based on neither logic, nor scientific method, nor empirical observation. There is no such thing as true randomness. There are random events generators that will generate "random" numbers, but they are not completely random because computations are completely causal processes.

When some scientists claim that something is random, it seems they don't understand exactly what they are claiming. They are claiming that some events that happen do not have a cause – that they happen uncaused. Unfortunately, in physics, this is not something they like to explore very much. Most college-level introductory physics textbooks will not even have an entry on causality or randomness. They might have one on the uncertainty principle. They consider the matter theoretical, whereas most of physics today focuses on practical applications. But, the theoretical understanding of what is happening at both the macro and quantum level is very important as it relates to this question of human will. There is no such thing as randomness in the sense of something

happening uncaused. Everything must have a cause. There has to be a reason why something has happened. Again, the best way to understand this is to consider that if anything is happening at this moment in time, it is completely dependent on, or caused by, the state of the universe, as the most complete description, at the previous moment. Let's say there was such a thing as randomness in the sense of uncaused. The notion of free will involves accountability. With a moral decision, a free will believer will say "we decided something because of some moral principle or principles." But, once we make that decision, and describe it as a moral decision, that's our cause. In other words, we made the decision because of some moral principle or precept. Or, we made the decision because we "wanted to." But, that want is a desire, and that desire is a cause.

In physics, the Copenhagen Interpretation of quantum mechanics is actually what you will find in most high school and college textbooks, because most standard physics textbooks are written by physicists who have never delved much into this matter of causality vs. randomness. Most leading physicists understand that physics is completely causal, and that quantum behavior is completely causal, but this understanding has curiously not made its way through to many rank and file physicists. This embarrassment to the field likely has something to do with the question of free will. Some physicists clearly believe in free will. To acknowledge that nothing can be uncaused would be to admit that we have no free will. Since the Copenhagen Interpretation in the mid 1920s, philosophers have been saying that particle behavior at the subatomic level is indeterminate. It's random, so that leaves an opening for free will. It's a completely irrational conclusion, but that is what they conclude in order to preserve their belief in free will. Heisenberg, and especially Bohr, pushed the idea of randomness and acausality on physicists when quantum mechanics was entirely new, and nobody really understood it. Actually, nobody *really* understands it today. Admittedly, there are amazingly counter-intuitive phenomena happening at that level. Many physicists back then, with little or no investigation of the question, simply concluded that if Heisenberg and Bohr said that quantum behavior is uncaused, it must be uncaused. Einstein and several other physicists attempted to clarify the matter, but they went about it in a misguided way.

They didn't focus on the causality of the matter; they focused on particle measurement. Einstein and his colleagues wanted to demonstrate that although you can't simultaneously measure the position and momentum of a particle directly, such measurement could be accomplished by proxy. That effort led to some experimentation, and it turned out that a proxy measurement will not work as a proof for causality.

They didn't take the right approach on this back then, but since the 1980s, physicists have, more and more, come to reject the Copenhagen Interpretation of quantum mechanics. They understand that everything has a cause. This Copenhagen interpretation has actually been replaced to a great extent by an interpretation of reality that to my mind doesn't make much sense, but at least it's deterministic. It's called the Many Worlds Interpretation, and it says that any time we make a decision, there are an infinite number of possibilities that can arise from that decision. Each of those possibilities supposedly takes place in a different universe. There is no credible evidence, of course, for that conclusion. The main point here is that various other interpretations are now more in vogue, and more accepted than, Copenhagen. There have actually been several polls conducted on this. In one, the Many Worlds Interpretation had over fifty percent of respondents agreeing that it was the dominant theory of nature. In physics, the field-wide transition from indeterministic to deterministic interpretations of quantum mechanics is already happening. The fact that we human beings do not have a free will challenges the very foundation of our understanding of who we are. We're living an amazing delusion. The irony here is that nature herself – the causal past, or God – has compelled us to have this illusion. It's like when we see what we think is water on the horizon while driving down a long straight road in the sun. It's an illusion. Hopefully within a couple of decades or sooner we'll all generally understand that our wills are completely causal, that there is no such thing as true randomness, and that if there were, that would also leave no room for a free will.

15. Why Frankfurt's *Second Order Desires* Do Not Allow for a Free Will

Free will being an illusion, and not representative of how things really are, our belief in it is very problematic to our actions on both the personal and global level. It leads to blame, accusations, conflict, competition, self-blame, arrogance, envy, and creates many problems. The two strongest refutations to that are that, firstly, we have an unconscious where all of our memories are stored. That unconscious is obviously not in our control. We're not even conscious of it. It's also the part of our brain that contains the processes by which we make our decisions. When we make a decision, we're not thinking to ourselves, "Why exactly did I decide that?" "What calculations did I use?" This all takes place at the level of the unconscious. If both the data and the processing for making decisions occur in the unconscious, obviously that makes free will impossible. Our decisions are being made at a level of our mind that we're not in control of, and that we're not even aware of in real time. The second reason free will is impossible is that everything has a cause. If we make a decision, there is a cause for that decision. And there's a cause for that cause, and a cause for that cause, and if you follow that chain of cause and effect back through its history, it stretches back to before we were born.

Let's begin refuting Frankfurt's "Second Order Desires" claim against free will. Harry Frankfurt is a philosopher who claims that while other animals have "first order" desires, human beings have both first and second order desires. An example of a first order desire might be that we want something to eat because we're on a

diet, and want to lose some weight. A second order desire, in this case, would be that we want something to eat, but would rather that we didn't want something to eat." It's a desire about a desire. Frankfurt is saying that because we have second order desires, that prospect would somehow give us a free will. There is no logic in that, as we'll see later, but that's his assertion. Let's first defend our animal friends. Throughout history, we've made claims that animals don't feel, and we've treated animals horribly because of this absurd notion. Whether it is farm animals or lab animals, we refuse to acknowledge, and admit to ourselves, that they absolutely do feel pain. There is no evidence for the assertion that animals don't have second order desires. For example, a dog named Cachidulo lives an apartment, and wants to pee. He wants to pee, but there is no one around to take him out for a walk. Cachidulo knows that in the past when he's gone to the bathroom on a carpet or other floor, he has been punished. We can all relate to the idea that a dog would have that understanding. Naturally, Cachidulo would very probably want to not want to go to the bathroom. Cachidulo is probably saying to himself, "Gee I wish I didn't have to go to the bathroom, because I would rather not get punished afterwards. Dogs clearly have second order desires.

Let's say we have a second order desire. We want to not want to eat, or we want to not want to smoke, or not want to whatever. But, how would that grant us a free will? A want is a reason, and whether it's a direct want or a want about a want, it's causal. If it's a want about a want – if I would want to not want to eat – there will be a reason for wanting that. When you have a reason, you have a cause. So, the simple refutation to these Frankfurt-style second order desire arguments for free will is "No, a second order desire in no way allows the decision to escape this law of causality that governs everything. Second order desires are not a valid demonstration of free will because of causality. Naturally, the causality of the unconscious refutes this claim equally well. That second order desire – that wanting to not want something – is taking place at the level of the unconscious. It is drawing from information stored in the unconscious. There have to be reasons why we would want, or not want, to do something. There is also our reasoning process. If all of our data – our memories and other stored information – is in our unconscious, then the processing of our

decisions must also be made at the level of the unconscious. We can understand how we have no control over our unconscious. The unconscious is certainly a part of us – no one is disputing that – but it's a part that we have absolutely no real-time control over.

It's as if your hand was saying "I made this decision to put myself here," whereas the reality is that your mind made the decision. Our conscious mind simply becomes aware of decisions that the unconscious makes, and claims credit for them. There are actually many experiments in neuroscience and psychology, like experiments with hypnosis, that demonstrate this misattribution. For example, subjects are hypnotized and given a post-hypnotic suggestion to do something. They come out of the hypnosis, and perform the post-hypnotic suggestion. They are then asked why they did what they did. They then make up a reason, or, more sincerely, plead ignorance. They express no recognition, or knowledge, that the reason they did what they did was because of the post-hypnotic suggestion. Every decision is made at the level of the unconscious, because that is where at least some of the data is. The decision making process must also be unconscious to be able to access that data. Naturally, since we can't control the unconscious, the decisions it makes cannot be thought of as having been freely made by our conscious mind. Frankfurt had a few other claims that are also mistaken in terms of how they would allow for a free will. He claims that free will is having the will that we want. In other words, if we can want what we want to want, to him that's free will. But that's not free will. That's just luck. If we have a will to stop smoking, for example, and we're actually able to succeed with this, we're fortunate. Such fortune in no way demonstrates that our want was freely willed. When we consider the question of human will in terms of wants, or desires, we understand why free will is impossible. We're not in control of our desires. Whether we desire a certain kind of food, or experience, or music, or clothing, or whatever, these are preferences that are the complete result of genetics and past experience. We can't, at the moment we're making a decision, just choose our desires. They have been chosen for us by this causal process of nature and nurture.

Frankfurt makes another kind of curious assertion. He says that some people are what he describes as "wontons." He says that

these people don't have impulse control. They can't control their impulses, so they naturally don't have a free will. He's, of course, right about impulses. We all have impulses, and to the extent that we can't control them, that naturally demonstrates that the impulses, and not a free will, are controlling us. But, he claims that those of us who can control our impulses have a free will. Why does that not make sense? Let's say we control an impulse. Why did we do that? There must have been a reason. Once we have a reason for doing something, we have a cause for doing something. Naturally, that cause has a cause, and that cause has a cause, and you end up with a causal regression leading to before our planet was created. Any time there's a question regarding why we do anything, or an assertion that we have a free will, the refutation is always the same. For example, one plus one is always going to equal two. That will be the answer whether the ones are in Roman numerals or Chinese characters, or whatever. It's always the same answer. With any claim to a free will, there are two basic answers. The first is causality. If a decision, to control our impulse has a reason, that reason is a cause. Causality is the reason why the decision is not freely willed. The other reason is the unconscious. We generally tend to think somewhat linguistically. Some of us think more in terms of imagery, but our thinking tends to involve the memory of concepts like "table," and "chair," which are stored in our memory. In order to make a decision about whatever, we have to consider it. If that information is not consciously available to us, it must be stored in the unconscious. It has to be, because for it to be consciously available, we would have to be aware at the moment of any decision every word and every memory that we've ever had. That is clearly impossible. We have to study to take tests. If we had a free will, we could just commit something to memory, and at test time just write it without hesitation, because we could freely draw whatever we willed from our memory bank. Obviously, very few of us can do that to any substantial degree, and even we who can, at a certain point, fail at accessing the memories. It is always our unconscious that allows us to access any of that information.

The unconscious not only stores the data upon which we're making decisions, impulse control, or whatever, but also our actual decision making processes. Why are we deciding one way rather than another? Is it a moral decision? Is it a hedonic decision? Is it a

rational decision? These are all considerations that are taking place at the unconscious level. We obviously don't consciously go through the entire process of why we're making a decision when we think. That's often what a gut feeling is about. Someone asks us something, and we wait for the answer to come to us. Let's briefly discuss the notion of second order desires from the standpoint of desires. Desires are conditioned to a great extent. The foods we prefer are different from the foods people from other countries prefer. This starts very early. We're conditioned to like something, or not. Sometimes even at a very early age, you find that mothers will try to get their children to eat spinach and some other foods. It doesn't always work. Sometimes our desires are genetic. Our strongest desire – the one actually responsible for all of our decisions, including moral decisions– is the hedonic desire, or the desire to seek pleasure and avoid pain. We're hard-wired for that. All organisms are hard-wired for that. Let's consider a second order desire to stop eating. Why would we want to do that? Perhaps we want to be healthier, or happier, or whatever. Any time we desire to not want something, there is a hedonic reason for that desire. That reason relates to our well-being. We predict that if we don't want to want something, or don't want to not want something, that will make our life, or the lives of those around us, better. The hedonic imperative of always seeking pleasure and avoiding pain is a great way to understand why we don't have a free will. If all of our decisions are based on that imperative, obviously we can't have a free will.

We generally talk about how our wills are completely determined by causality, and how the past moment completely determines our will. But, we should remember that everything is completely causal. If you go outside and see cars and people moving, and birds flying, take notice that everything is happening in a completely causal way. We are actually taking part in a kind of movie, and reality, or our world, is the movie. It's even more amazing than that, because generally with a movie, the actors get to interpret their roles somewhat. Actors have some say in how they interpret their character, and play their role. But in this movie called reality – our universe – we don't even get to interpret our roles. Our every reaction to everything is predetermined. What I'm also saying is that it's not just human behavior that is causal. It's not just animal

behavior that is causal. The Sun, and the rain, and the entirety of nature, are all causal. It's all predetermined. I do not describe reality as "predestined," because that relates to the religious concept that some people are pre-destined to a better or worse place in the afterlife. But, essentially, everything that is happening at this moment in time is predetermined by cause and effect. We're spectators, rather than the writers. We experience, rather than decide. From a religious perspective, asserting that we have a free will is like asserting that we are mini-gods who "create" decisions. However, if we believe in a God that is all-powerful, all powerful means that God's decisions rule. Our actions are basically expressing God's will. We're instruments of God. That way of understanding our human will makes more sense to many of us. It feels much better than describing us as robots or puppets, or computers. A computer is programmed to do certain tasks, and it has no free choice but to do those tasks. We can accurately describe ourselves as robots or puppets or computers, but that self-definition is impersonal. I believe in God, because I define God as everything, which makes God synonymous with our universe. By retaining our belief in God, and understanding our lack of free will within that context, we personify both ourselves and our wider reality. God is generally defined as omniscient, or all-knowing. God is also often described as omnipresent, or everywhere. If God is everywhere, we are a part of God. Everything is a part of God. There isn't anything that exists that isn't a part of God. Logically, if God created everything, s/he had to have created everything from her/himself. From that standpoint, we're the hands of God. We're the instruments of God, and the vehicles for God's will.

We're certainly a part of God, but we're not the decision making part. There is a part of reality that you can define as either the causal past or God, although it's more precisely defined as the causal past. Question then arise. Does God have a free will? Can God break this law of causality? I'm not sure s/he can. I would hope s/he can't, because I like to believe in a good and loving God. That understanding obviously doesn't make sense because there are so many not-so-good and unloving things in the world. But, to the extent that I ascribe a free will to God, then I would have to hold her/him responsible. If I understand that God is compelled by causality in every act, I can hold God as innocent as we are. When

we fall for the notion that we have a free will, we hold ourselves responsible. We indict ourselves, and convict ourselves, and punish each other and ourselves. When we understand that we don't have a free will, and we hold ourselves as innocent, we're much more understanding. Some of us are afraid that if we abandon the illusion of free will, everyone will just do whatever they want, because they will say, "You can't blame me. I'm programmed – blame the universe." The reason we would not let that happen is because we're programmed, to be hedonic creatures. We're always going to seek pleasure and avoid pain, both as individuals and as a society. This means that if someone is going around doing something that is not good for them, or us, we're going to take steps to not allow that. I trust you now understand why the Frankfurt second order desires argument for free will just doesn't make sense.

16. Overcoming the Illusion of Free Will as an Evolutionary Leap in Human Consciousness

We humans have been around for a few million years. We've gone through some evolution during that time. We've gotten taller, we walk more upright, we're more intelligent, our brains are bigger, we've lost some hair, etc. As our human physiology has evolved, so has our mind. Over the last couple of millennia, for example, we had wildly erroneous notions about women. The notion that women are incompetent and unintelligent as compared with men still survives to some extent even today. In Judaism there was once a law forbidding the teaching of the Torah, or Jewish law and wisdom, to women because male Jewish leaders were afraid that women would corrupt the teachings. Our minds have evolved in terms of how we see each other and ourselves. As part of this evolution, we're gaining a better understanding of who we are within this universe. Hundreds of years ago, we thought that the Earth was the center of the solar system, and the center of the universe. We now know that we're living on a tiny planet within one of billions of galaxies in this immense reality. We cannot even logically or scientifically discern whether our reality is infinite and eternal, or not. We've come to understand our place better in this universe, and we've learned to better get along with each other. We've learned to form societies. We can generally walk around without carrying weapons. We trust each other, and have a created a civilization.

However, our world definitely has problems, and many of them stem from the way we see each other and ourselves – from how we perceive our human will. This notion that we have a free will –

that our decisions are completely up to us – is the premise for our legal system of holding people accountable. It labels criminals as bad, and therefore deserving of punishment. Free will also forms the premise and foundation of our socio-economic system of rewards and punishments. If someone does something that we consider good, we say to ourselves that they did it of their own free will, and deserve a greater reward than someone who did not, or could not, do such a deed. The notion and illusion of free will also affects our relationship with the people closest to us, and our relationship with ourselves. We were made imperfect in many ways. This free will illusion aside, we have faults, and flaws. We get things wrong. We're far from perfect. If we did have a free will, who among us wouldn't choose to be completely good all of the time? But, we don't have a free will, and because of that act against each other, doing what we unfortunately can't but do. The irony here is that until now, the universe has had us ascribe accountability to each other and ourselves. That kind of attribution often leads to conflict, aggression, and hostility. It leads to vengeance and revenge. It leads to indictments. I'm taping this episode a couple of days after the U.S. killed Osama bin Laden. Some people celebrated in the streets, partly because of their prediction that the world would become safer, but also partly from a free will-based vengeful attitude. Our desire for retribution is pervasive. To the extent we believe we have a free will, we will treat others and ourselves differently than we would under a causal, or unconscious will perspective. The idea of forgiveness is common to all major religions. We understand that everyone is imperfect, so we forgive. Forgiving derives from the recognition that the person could not have done any better – that the person is human, and flawed. Forgiveness is done from virtue. You are a good person if you forgive, but you don't necessarily have to do so. When you understand that free will is an illusion, there is nothing to forgive because there is no reason for indictment to begin with.

The notion of free will is the foundation of our civilization, and of our personal lives. What would our world be like if we were to overcome this illusion? Under the free will illusion, we do something good and "hey, we're great! We're better than other people!" We become arrogant. We compare ourselves with others. We think we're special. That self-attribution separates others from

us, and separates us from others. Such comparison creates a barrier between people. When we do something wrong, we blame ourselves. We often conclude that because we did something bad, we deserve to suffer. We deserve to be punished. Very often, we'll punish ourselves through feeling the self-inflicted pain of guilt. I'm not asserting that we should overcome our conscience, because certainly our understanding of right and wrong is good and necessary. But the idea that because we did something wrong, we deserve punishment is our current understanding, and as we transcend this illusion of free will, we can expect to become much kinder to ourselves. As we overcome the illusion of free will, we will also become more humble. We won't see ourselves as better than others. We might have a better skill, or might be able to do something better, but it's not up to us anyway. It's completely fated. It's just how God, or the universe, is using us.

Let's also go through envy. When we see other people do something really well, we might envy them. We might say to ourselves "wow, these people are so much better than we are." This conclusion is derived from the illusion of free will. We say that because they freely choose to do whatever they did, they deserve the credit, and are better because of it. The problem with that attitude is that it often demeans and devalues us. As we transcend the illusion of free will, we restore egalitarianism, and true equality, to all of us. Some of us may be luckier in certain ways than everyone else, but such luck is in no way attributable to their having a free will. In relating to our family and friends, often conflicts happen because we ascribe free will to others. If someone does something we deem inconsiderate, we blame him or her. If someone is doing something disturbing, we'll sometimes say to ourselves "this person is evil, or bad." When we take that attitude, naturally, they get defensive, and the situation is ripe for conflict. That's the problem with ascribing free will to others. When we recognize that we don't have a free will, and that free will is an illusion, when someone does something wrong, or inconsiderate, we may have reason to become upset that the universe has caused that to happen, but we won't be upset at the person. We'll recognize that the person had no choice but to be the way they were, and do what they did. That's how fate made them act. To the extent that we hold that perspective, we maintain better relationships with each other. I think you now understand why the

illusion of free will is harmful, and how overcoming it can be very helpful to our lives. Let's now explore what overcoming the illusion of free will means to our world, and why I describe this as an evolutionary leap.

We have the basic, fundamental fact about human will completely wrong. We're ascribing authorship to ourselves when we're really just the actors. To the extent that we get the nature of our human will right, our whole psychology will change. Our consciousness will change. It feels surreal to know that this life is really a movie, and that everything that is happening because it is compelled to happen, and that we're just going along for the ride. We're experiencing life rather than freely making the decisions that make it happen. Consider our global criminal justice system. There are many, many people in jails and prisons all over the world, and the sad truth is that they are as innocent as the most innocent of us. They were completely compelled to do what they did. They had absolutely no free choice in the matter. Naturally, we will need to maintain law and order in the world. We can't have us simply do whatever we want to do, but to the extent that we transcend the illusion of free will, we will be seeing others and ourselves, and others will see themselves and us, in a completely different way. When a police officer, or a judge, or we, as society, look at someone who has done something wrong, we're not going to say, "That person's evil, and deserves to be punished and suffer." We're going to instead say, "It's very unfortunate that the person was fated to do something wrong," and we may have to take certain measures, like separating that person from society. But when we're relating to that person, we're not going to be condemning them, and they will understand that whatever they did was not their fault. Remember that much of the pain that arises from the illusion of free will comes from self-blame. Our criminal justice system would be dramatically changed for the better, and we would be creating a much more compassionate world by overcoming the illusion of free will. Religion will also change profoundly.

Again, the concept of free will was coined by Augustine sometime around 380 A.D. He wrote a book back then called *De Libero Arbitrio*, which is Latin for "on free will." He was grappling with the notion of evil. Since according to the Judeo-Christian

tradition, God is believed to be omni-benevolent, or all good, he was considering the question “How can there be evil in the world?” His answer was that if it’s not God’s fault, it has to be our fault. The foundation for most religions, and especially the condemning of people to hell or the rewarding of people with heaven, depends on the notion of free will. That’s something that will have to change. No longer can religion rightly call a person evil. We might refer to an act as evil, but the person will always be recognized and understood as innocent. Once that happens, it’s no longer justifiable to have the belief that some of us go to heaven, while everyone else goes to hell. That paradigm no longer makes sense. God willing, we’ll adapt the belief that we all go to heaven. In truth, we don’t know what, if anything, happens after we die, and the belief that we all go to heaven seems the kindest, and most optimistic, belief available to us. Our educational system will also change because, at present, we don’t teach our children to be as happy and as good as possible. With the notion of free will comes the correlate that it doesn’t really matter what we teach them about goodness and happiness. Those of us who buy into the myth of free will conclude that when our children grow older, they can completely ignore our teaching through their free will. To the extent that we understand that our human will is causal, and unconscious, and that free will is an illusion, we’ll understand how important it is to spend the proper resources to educate our children in the best way. What we communicate to them is what they will express as adults.

The evidence demonstrating that we don’t have a free will is accumulating in the sciences, like neuroscience and psychology. In philosophy the logical arguments against free will – causality and the unconscious – have been understood since the time of the Greeks. Overcoming the illusion of free will is likely to come in stages. A milestone happened in April, 2011 when the weekly science magazine *New Scientist* published a cover story on the nature of human will titled “Free Will; the illusion we can’t live without.” One reason this is a milestone is that in the past magazines almost never covered free will, and never before through a cover story. The piece understands and asserts the fact that free will is an illusion. What will likely happen is that more of those kinds of articles will be published, initially in science magazines like *Scientific American* and *Psychology Today*. We’ll then begin to think about the matter

more. We'll begin to understand how it relates to our personal lives. As we come to understand that free will is an illusion, this new and revolutionary truth will find its way into the more popular magazine, into our legal system, and into our educational system.

In our educational system today, we teach students that human behavior is the complete result of nature and nurture, but we don't ever go beyond that. We don't say that because of that, we don't have a free will. But, as we begin to understand our causal, unconscious human will, this new perspective will become the standard teaching. It will be the way our children, and the rest of us, are taught. What will be the outcome? On a personal level, when two people are having some kind of disagreement, it's not going to take the form of competition. They are not going to be in conflict – one against the other. They will both be on the same side, trying to figure out why fate is pitting them against each other – why fate is having one aggress against the other. As all of this takes place, there will be a profound and substantial change in our human consciousness. I start each show with a quote from philosopher John Searle, who says that for free will to be understood as an illusion would be “a bigger revolution in our thinking than Einstein, or Copernicus, or Newton, or Galileo, or Darwin. It would alter our whole conception of our relation with the universe.” It will, in fact, be the most significant world change ever. The purpose of life isn't to understand that we don't have a free will. But understanding this has its utility in helping us create a happier world. Ultimately as we become more aware of our lack of free will, and start structuring our societies and world based on that understanding, we'll recognize that happiness is the main goal of our life. That may be a second kind of evolutionary shift in our consciousness and our world.

17. Revitalizing Religion through Transcending the Illusion of Free Will

With religion, at least in America and probably throughout the world, as each decade goes by there are fewer and fewer people who gravitate to it – that have it as a part of their everyday life. That's somewhat unfortunate because while some religions continue to propound certain beliefs that are outdated, divisive or otherwise harmful, there is one aspect of religion that is very beneficial to society and to us as individuals. Modern cities, suburbs and metropolitan areas are a relatively new aspect of civilization. Before that, there were mainly small towns, and before that, tribal, or other, small groups, that created a true community. One could see and relate to the same people each day, whereas in many of our cities one can walk for hours seeing only strangers.

As our civilization evolved from small towns to the cities and their suburbs, we lost a great part of that cohesion. Television and other media help bring us together in a certain way, but churches and synagogues, and other religious institutions, have traditionally been our principle means of creating communities. From that perspective, it's unfortunate that religion is waning as it has been during recent decades. The problem is dire for many congregations. For example, the cost of maintaining their property has become so burdensome that many congregations are now forced to share their building with one or more other congregations. That's a nice idea in a sense, but the salient point here is that because of their dwindling membership, these religious institutions are threatened, and the vehicle for community they create is threatened.

There are various reasons why so many people have moved away from religion. In Christianity, and much less so in Judaism, there is the idea that if you do certain wrongs, you're going to be punished for the rest of eternity. As we evolve as a species, and become more intelligent and knowledgeable about our world, we think to ourselves "why would an all-loving God do this?" or "if we're here on Earth for about eighty years, how can one justify being condemned to suffer an eternity – trillions of years, at the very least – for an act done in a day?" Sometimes churches are seen as hypocritical in the sense that they profess to champion the rights of the poor, but, when it comes to politics, many churches and other religious institutions will support policies and legislation that oppose the interests of poor populations. And it's not just about poverty. It's also about children's rights, women's rights, and various other kinds of issues. Another reason for this exodus from religion is that the traditional mythology doesn't seem to work anymore. It's actually counterproductive in many ways. Consider, for example, the creation story of Adam and Eve. The standard account is that Eve, the first woman, was formed from the rib of Adam, the first man. That account is derogatory to women. Lastly, relatively speaking, very little in religion has changed over the last two thousand years. So much of it does not make sense to people, and that may account, in part, for why so many of us have left religious congregations and communities. My hope and expectation is that a major change in theology – in what churches and synagogues believe and teach – might actually help bring people back to the flock, and to a religious community that is based on doing good, and being good, and improving the world. That's, to a great extent, what religion is about.

Before going through how the idea that we don't have a free will can help congregations bring people back, I just want to go briefly through what this idea of free will means in religion. In Christianity, most people take free will to be a premise, but when you look through the Bible, you'll find that the issue is far from clear. For example, the first Christian documented to have questioned and challenged free will was Paul in his letter to the Romans, which is dated about 58 A.D. At 7:15, Paul writes, "I don't understand myself at all, for I really want to do what is right, but I can't. I do what I don't want to do – what I hate." Here Paul is explaining that if he had a free will, he would be good all of the

time. He knows that with a free will he would do the good that he wanted to do, and not do that evil that he doesn't want to do. Paul had this understanding in 58 A.D.! What many people don't realize is that the term "free will" is actually not in the Bible. It doesn't appear in Christian theology until about 380-90 A.D. when Augustine grappled with the question of human will. It was in relation to God's qualities. Augustine was trying to reconcile evil and justice with the premise that God is all-good, and wrote a book titled *De Libero Arbitrio*, which is translated as "on free will." He actually coined the term free will. He writes, "Evil deeds are punished by the justice of God. They would not be punished justly if they had not been performed voluntarily." This conclusion is based on a misunderstanding – or one interpretation – of God. One conception of God is that s/he is omni-benevolent, or all-good. The reality is that God Her/Himself in Isaiah said that he creates both good and evil. From that contradicting evidence, you can see how Augustine's premise, upon which he based his need for a free will, is actually false, at least according to the prophet Isaiah.

The notion of free will is not central to the Bible. It's something that is not even mentioned as a term, and is alluded to very infrequently. Many religious congregations could very realistically and authoritatively look at the question of human will, and reach a new conclusion. Many congregations now understand that the world was not created about 6,000 years ago, as the Bible would have us believe. Most congregations, I would imagine, accept the standard scientific understanding that the universe is, as far as we know, about 13.7 billion years old. It's not uncommon for churches, denominations and congregations to look at the world through the eyes of modern science, and amend or change certain beliefs that seemed reasonable back when they were created, but no longer seem justifiable. Let's say churches began to promote the idea that free will is an illusion. They would begin to teach that the truth is that we human beings do not have a free will, and free will is nothing more than a myth. But at the same time they would say, very rightly, that knowing this does not give us license to do as we please. Just because we're not the authors of our acts – of our thoughts and decisions – doesn't mean that we can shirk responsibility. What we do has consequences and we have to maintain order, rule of law, and civilization. When we are judging others and ourselves, we should

remember that we were all born with faults, and that we all sin. Sin, incidentally, in its original Hebrew form, literally and simply means “missing the mark,” as when one is shooting an arrow at a target.

Religions very rightly teach that because we’re all flawed in various ways, it is wise to forgive each other and ourselves for the invariable mistakes that we will make. But to the extent that we understand that we are not the authors of our thoughts, what churches and synagogues could teach is that we’re instruments of God. That would certainly fit within their theology. Because we are not the authors of what we do, we now have every rationale to be more understanding toward each other and ourselves, and hold each other and ourselves innocent. That’s major. If what we do is not really up to us, we’re all fundamentally innocent. If we’re just basically manifesting the will of God or fate, then when we do wrong there is not even a need to “forgive” others or ourselves. We might want to forgive God, or the universe, for compelling us to do wrong. That’s certainly a question to be explored. But, there is no longer any justification or rationale for blaming others or ourselves, and wanting us to be punished retributively.

A new causal will perspective would be epochal for religion. It would revitalize religion for many who long ago left the flock. When Jesus came around about 2,000 years ago, that was a major change from the very legalistic tradition of the Jewish Pharisees. Christianity was supposed to be more about acts of compassion and mercy than scrupulous adherence to a multitude of laws. Since that time, there was Mohammad with Islam, and others with other religions transforming regions of the world. But within the Judeo-Christian context, nothing as major as our collectively overcoming the illusion of free will has happened over the last two thousand years, or perhaps ever. Overcoming the illusion of free will would represent that sea change people need, and want, if they are to return to religion. Many have moved away from conventional religion because, in too many ways, it doesn’t make sense to their lives any more. It’s unfortunate. Much of religion is ennobling; it helps people to understand the difference between right and wrong. Much of religion is very good, and very useful. The communities that religions create through the world are an invaluable service to humanity. It’s a shame that congregations are dwindling, and it’s a

shame that some very important ideas that these congregations hold are so out-dated. Considering that the notion of free will is not central – remember that a term for free will is not even found in the Bible – to any biblical teaching, and it was simply Augustine's answer to his conclusion that God can't be blamed for anything, it is something we all could perhaps fare much better without. Often in religion, when we humans do something that is really good, we're taught to be modest, and humble, and thank God. We're taught that we could not have done the good we did without God's allowing us to do it. We praise God for the good that we do, and feel gratitude for his help. But, when it comes to our doing wrong, we're taught by religions that we shouldn't blame God; it has to be our fault. You'll, of course, notice the inconsistent logic in praising God when things go right, but blaming humans when they don't. Religions teach us to blame each other and ourselves. It's not just religion. Our legal system, our educational system, and, in fact, our whole civilization, is based on this myth, this illusion, of free will.

To overcome the free will illusion would be a complete paradigm shift in what churches, synagogues, mosques and temples teach. This could be a global movement. It no longer makes sense to believe that human beings have a free will. The belief in free will leads to so much unnecessary conflict and aggression. If overcoming this belief and adopting a new understanding of our causal will – that we are basically instruments of God – would help revitalize religion, and help bring people back to congregations so that we can restore our lost sense of community, that would be wonderful. Challenging the notion of free will, a belief we've held for as long as we can remember, could not but attract the keen interest and attention of congregations and people who have left churches and synagogues, and may now wish to come back, if for no other reason than to explore this brand new perspective on reality – to see how their lives could change as a result of their not blaming the people in it for what they do wrong, and not feeling the pain of guilt for what they do wrong. This certainly does not mean that we will abandon morality, because we are hard-wired to seek what we believe is good, and we're hard-wired to seek pleasure and avoid pain. We're not going to abandon these values and our morality. But, we no longer have to blame people, and when we no longer blame people for what they do wrong, we feel closer to them. When we don't blame ourselves for

what we do wrong, we feel better about ourselves, and self-esteem is one of the four personality traits most closely correlated with happiness. Considering how science, logic, and experience so completely refute it, the notion of free will is ripe for overcoming and transcending. As religious institutions recognize that they can overcome the illusion of free will, and still promote morality, the existence of God, and the rest of their theology, religions can help create a new world.

Our world has many problems. Climate change, the global economic crisis, overpopulation and much more is going on, and we need new answers. The answers that have been coming out of politics and religion for centuries are just not suited to the reality we now face. With climate change, for example, as the world is challenged in various ways, the last thing we want to do is be at odds with each other, not doing what we need to do because we are so busy blaming ourselves and each other for what went wrong. I hope that ministers, pastors, rabbis and other clerics throughout the various religions and denominations will understand the importance of this issue of human will, and how rightly addressing it can bring people back to their congregations.

18. Why Humans Cannot Circumvent Natural Law to Gain a Free Will

For this book's final chapter, let's talk about why human beings cannot circumvent natural law to gain a free will. Some philosophers concede that everything has a cause; they concede that nature is causal. These philosophers concede that nature, particles, matter – everything – has a cause, but they believe that we human beings are different. They say that it is because we are different that we have a free will, but when we explore that contention, we find that it's wrong on two counts. Firstly, by all appearances, we are matter. We are physical, and we're bound by the physical laws. Even if we were to claim that our decisions were not "physical," and that they were, in fact, "spiritual," we must understand that every decision we make is made at a moment in time. We can't escape this fundamental understanding that whether the decision is defined as physical or spiritual, the decision is made at a precise moment in time. Thus, because our decision resides within time, it is subject to the physical laws. We no longer understand time as an entity separate from space. It's best understood as space-time. This is one of the results of Einstein's special relativity. Time cannot exist without space. Space cannot exist without time. If the universe is made of space-time – particles, energy, matter, mass-energy interacting in space-time, – and you have a spiritual decision occurring in time, such a decision must be completely determined by the causal laws. Some philosophers contend that we human beings are special, and can circumvent natural law to have a free will. This contention asserts that causality doesn't apply to us, and that we can

make a decision of our own free will. But what does that mean? Does that mean that our decision is made without a cause? Think about this. By definition, randomness means without order or purpose. Its strongest meaning is that something is actually uncaused. If a decision is made without a cause, then it must be random. If a decision is random, certainly we can't take credit for it, or assign it to a free will.

Let's consider decisions relative to morality. Morality is a key concept in this question of human will. To understand that we don't have a free will is to understand that, essentially and most fundamentally, we're not morally responsible. We might want to blame, or hold accountable, the universe for whatever it compels us to do. But since we're agents, or instruments, of the past, and since our decisions are not up to us, we are not fundamentally personally morally responsible. From that perspective, if we could make a "freely willed decision," and our decision had no causal past, this would mean that the decision would also have no moral reason. We see that such a morality-based concept of a free will is simply incoherent. There is no evidence for the contention that we human beings can somehow circumvent natural law. I'll explain this in terms of quantum mechanics, and the physical nature of reality. Back in the mid 1920s, Werner Heisenberg published a paper showing that at the quantum level, our knowledge of particle behavior is "uncertain." In other words, in classical mechanics – the mechanics of Isaac Newton, and the mechanics physicists relied on to make predictions before quantum physics – we could simultaneously measure the position and momentum of an object accurately enough to make a successful prediction. At the quantum level, however, such classical measurement and prediction is not possible. Imagine we fire a photon at another particle to measure its position and momentum. The problem here is that the act of firing the photon at the target particle interferes with the trajectory, or the momentum, of that particle. Hence, physicists cannot simultaneously achieve an accurate measure of the particle's position and momentum. At the macro level of an everyday object like a grapefruit, the difference between a measuring particle like a photon and the grapefruit is so great that the photon would not, for practical purposes, interfere with the measuring process.

Some philosophers claim that this Heisenberg Uncertainty Principle demonstrates that matter, at its most fundamental level, is random. Again, there is no logic behind this assertion. The term randomness is incoherent because randomness means that things happen without causes. Try to imagine anything happening without a cause. What would that even mean? Our science all points to the very strong conclusion that everything is caused, that everything has a causal past. Because of that, free will is impossible. If I make a decision right now, and there is a cause for that decision, and there's a cause for that cause, and a cause for that cause, again we can see how that chain will go back to before I was born, and to before the Planet was created. One of the factors that lead to claims that we human beings can somehow circumvent natural law to gain a free will is that life would have no meaning without a free will. They say "If we're instruments of God, and if we're not the authors of our acts, and if we're just the actors, and we don't get the opportunity to even interpret our roles, then what's the point of anything?" This concern has some cogency, but, it's somewhat like asking "What's the point of our life at all, since we're here only about eighty years with an eternity on either side of us?" I tend to believe in an afterlife, because I try to have beliefs that increase happiness and diminish unhappiness. Existing seems, for whatever reason, like a more pleasant belief than not existing.

We may not have a free will, but we still experience life. We human beings don't decide; we experience. What I'm saying right now, what we all feel and do, is all real. Meaning in life has to do to a great extent with emotion. We're hedonic creatures. We seek pleasure. We avoid pain. Meaning is valuable because it is a pleasant experience. It makes us feel good to value things, and give them meaning. But life can have sufficient meaning without our falsely believing that we are the authors of our thoughts. Let's say we attribute our thoughts to a deity or god. Let's say God is responsible for our thoughts. We could also say this scientifically – that it is the causal past or our unconscious that is responsible. If we attribute all of this to God, we could ask ourselves "Whom would we want deciding what we do, we with our limited experience and knowledge, or a God who presumably knows everything?"

This is admittedly not completely satisfying because if we had a free will, who among us would choose to not feel happy all of the time – to not feel blissful all of the time? Who among us, if we had a free will, would choose to feel negative feelings? Who among us would choose to do what is wrong – to make mistakes? From that perspective, if we had a free will, we would be in paradise. It's because we don't have a free will that we're not there yet. That's not to say that we can't eventually live within a paradise, understanding fully that our world and human will are causal. We can glean great meaning from life while understanding that free will is, in fact, an illusion. We're obviously fated to succeed at some tasks and fail at others, but it's all predetermined. You have to ask yourself "why in the world would fate cause us to fail at anything," because who likes to fail? Also, fate creates us as beings that find displeasure from failure, but, nonetheless, compels us to fail sometimes, and feel the sting of defeat. It doesn't make sense, but it's kind of like asking why there's pain in the universe. Without pain, the universe would be completely blissful. So, the answer is, "Who knows?" Who knows why things are like that, but they absolutely have to be like that because we don't have a free will. It's curious and interesting that we've been fated to believe that we're the authors of our thoughts, when the exact opposite is the case. Now, for whatever reason, fate has determined that it is time for us to understand the true nature of our human will. By that, hopefully we'll be fated to create a much better world as a result.

Epilogue: How Refuting Free Will Went From Academia to the Public Spotlight – with listing of articles in major publications – 2004-2012

Everything is caused, and so it is with the popularization that free will is an illusion. For centuries, the determinism vs. free will debate languished within academia where proponents of free will could not understand, or accept, the simple but compelling truth that both determinism and indeterminism make free will impossible, and their colleagues who understood this truth had not only all but given up on the prospect of showing them the error of this conclusion, also either lacked the moral courage or failed to appreciate the vast personal and global benefits to be gained through the wider public's understanding and accepting of this truth. Below is the history of how a few invaluable friends and I moved – most correctly how the universe made us move – the free will topic from academia into the public spotlight. This grass-roots, bottom-up and shoestring-budgeted initiative ultimately led to an explosion of media coverage over the last few years that included landmark cover stories that exposed free will as an illusion by *New Scientist* in 2011 and *Scientific American Mind* magazines in 2012, and to *New York Times* best-selling author Sam Harris publishing his 2012 refutation titled *Free Will*. While evident that this heightened major media and public interest in the topic began soon after I launched my Madison Avenue, New York City-based Meetup group titled, “The Predetermined Will Society – Busting the Free Will Myth” on April 7, 2010, I begin this history with some of my earlier efforts and initiatives to create a public buzz about free will being an illusion.

To show the causal correlation between my strategies and the ensuing explosion in media coverage, I have chronologically listed the mainstream media articles that appeared within that timeline.

History of How Refuting Free Will Went From Academia to the Public Spotlight

In early 1997, I began work on a book refuting free will. After drafting about forty pages, I began to edit and re-work the pages, and the rest of the book never got written. I plan to include these pages in a book scheduled for publication later in 2014.

On September 12, 1997, I wrote a physics paper titled “Two Proofs of Determinism in All of Nature; A Case for the Law of Cause and Effect” that was accepted for review first by *The International Journal of Theoretical Physics* and subsequently by *Physical Review D15 (Particles, Fields, Fluids, Gravitation, and Cosmology)*. Although both peer-review journals ultimately declined to publish, I continue to maintain confidence in the correctness of these proofs that refute the notion of true randomness, or uncaused events, in nature.

In 2000, I plastered Internet newsgroups with articles refuting free will. On February 28th, I cross-posted “The Impossibility of Free Will,” and on March 3rd, “The Insanity of Free Will.” On March 4th, I followed up with the regrettably titled and toned (thankfully I can’t honestly blame myself) “Regarding Stupid Psychologists and Free Will.”

In 2003, I produced and hosted the world’s first television program entirely about happiness – *The Happiness Show*, and on May 20th, for my seventh episode, I recorded, broadcasted, and

uploaded to *The Internet Archive* and *Google Video*, “Happiness and the Determinism vs. Free Will Question.”

In March of 2004, I published an article in The Westchester, New York Ethical Culture Society’s monthly newsletter, *The Page*, titled “Determinism, Free Will, Ethics, and Happiness.”

Salon – “How free is free will?” by Farhad Manjoo, May 21, 2004

Foreign Policy – “Undermining Free Will” by Paul Davies, September 1, 2004

On February 28, 2005, my co-host Lionel Ketchian and I revisited the topic of human will as it relates to happiness on *The Happiness Show* with an episode titled “A Conversation about Happiness, Free Will and Determinism.”

On April 17, 2005, at the Sunday Meeting of that same Westchester, New York Ethical Culture Society, I delivered an address to the congregation titled “Why Free Will is Impossible, and why it Matters.”

The Cornell Daily Sun – “Prof Denies Human Free Will” by Julie Geng, August 30, 2005

During 2007 and 2008, under the username *Blisser*, I visited Atheist voice-chat rooms on *Paltalk*, and repeatedly explained the theological and scientific reasons why free will is impossible. During

that time, I also hosted a *Paltalk* room dedicated to refuting the notion of free will.

Science Magazine – “Case Closed for Free Will?” by Elsa Youngsteadt, April 14, 2008

The Economist – “Incognito,” April, 16th 2009

In June of 2009, I began emailing a group of academic philosophers and psychologists various free will refutations. Here’s a sampling of the themes: “Arguments against Liberty of Indifference and Quantum Indeterminacy,” June 1st; “A Simple Refutation of Frankfurt-Type Examples,” June 3rd; “Is a Free Will Moral and Worth Having,” June 11th.

Psychology Today – “The Will is Caused, not “Free” by John A. Bargh, Ph.D., June 23, 2009

At the invitation of philosopher Robert Kane, I visited *The Garden of Forking Paths* free will blog, and debated the academic philosophers there. Here are a few of the debates I entered and, in my opinion, won: “A Flaw in the Standard Argument Against Free Will?” by Bob Doyle, June 26th; “History of FW Skepticism” by Kevin Timpe, June 29th; “Are Humans Glorified Thermostats?” by Kip, July 3rd.

On Saturday, October 17, 2009, I delivered the lecture “Why We Humans Do Not Have a Free Will” at the 2009 Empire State College Student Academic Conference in Saratoga Springs, New York.

The Tipping Point in the Buzz About the Illusion of Free Will

On April 7, 2010, I founded the world's first philosophical discussion group entirely dedicated to refuting the notion of free will: "The Predetermined Will Society – Busting the Free Will Myth" (now called "Exploring the Illusion of Free Will") at *Meeup.com*. I live in White Plains, New York, but based the group at 550 Madison Avenue in mid-town Manhattan because while White Plains has a population of almost 57,000, Manhattan's population stands at over 1.5 million. Also, I knew from personal experience that *Meetup.com* members from much of the New York metropolitan area, with a population of over 22 million, regularly search for and attend the events in Manhattan. My plan was to create a buzz about free will being an illusion among the many *Meetup.com* members who happened upon my group's listing while searching through *Meetup* groups based in New York City. I estimate that since our April 7, 2010 launch date, my group's listing and logos have been viewed hundreds of thousands, if not millions, of times. Evidently, this listing was the beginning and principle cause of a public buzz that jumpstarted the subsequent major media explosion of coverage on the understanding that free will is an illusion.

Scientific American – "Scientists say free will probably doesn't exist, but urge: 'Don't stop believing!'" by Jesse Bering, April 14, 2010 (Dated incorrectly as April 6, 2010 see comments for correct date).

The Garden of Forking Paths morphed into *Flickers of Freedom*, and I began debating academic philosophers there as well.

A few examples: “Determinism: the Good, the Bad, and the Ugly by Roy Baumeister,” June 28th; “Does Consciousness Matter?” by Neil Levy, July 09th; “G. Strawson @ NYT” by Manuel Vargus, July 22nd.

Time Magazine – “Think You’re Operating on Free Will? Think Again” by Eben Harrell, July 2, 2010.

The New York Times – “Your Move: The Maze of Free Will” by Galen Strawson, July 22, 2010.

On July 29, 2010, my desire to take this important truth to the streets compelled me to design order, and regularly wear a dozen custom t-shirts from an eBay seller that declare “Transcend the free will delusion.” I also designed a banner inviting discussions about the determinism vs. free will question, and held numerous public debates over the last few years at the Mall near Bethesda Fountain in Central Park, New York City.

The World’s First Television Series Entirely about the Illusion of Free Will

In September of 2010, I approached Meetup member Nomi with the idea of doing a cable TV show about the illusion of free will.

Psychology Today – “Beyond free will and determinism: Take a chance with the Dice Man” by Joachim I. Krueger, Ph.D., September 20, 2010.

The Telegraph – “Neuroscience, free will and determinism: ‘I’m just a machine’” by Tom Chivers, October 12, 2010.

The Telegraph – “Neuroscience and free will: when definitions become important” by Tom Chivers, October 12th, 2010.

On November 27, 2010, I began recording for our new White Plains, New York weekly television series, *Exploring the Illusion of Free Will*.

Psychology Today – “A random walk through the free will-dermess” by Joachim Krueger, Ph.D., December 5, 2010.

On January 6, 2011, our show premiered in White Plains on Cablevision channel 76. It still cablecasts to White Plains, and Verizon FiOS channel 45 expands our reach to sections of neighboring Westchester County communities that include Ardsley, Byram Hills, Greenburgh, Hartsdale, Irvington, Mamaroneck, Mount Pleasant, North Castle, Scarsdale, and Tarrytown. Since 2012, it also cablecasts twice a week or more in New York City on Manhattan’s cable TV station, MNN. Part of how and why the topic of free will exploded into public awareness over the next year and a half is that White Plains, New York happens to be a community of choice for many of Manhattan’s movers and shakers who prefer to live and raise a family in a small suburban city rather than in The Big Apple. Incidentally, Facebook CEO Mark Zuckerberg was born here in

White Plains, and was raised in nearby Ardsley. Cablecasting my show in White Plains, and other Westchester County, New York communities is the kind of “being in the right place” luck that Malcolm Gladwell refers to in his best-selling book *Outliers*.

Also in January of 2011, I created and published the show’s website, *Exploring the Illusion of Free Will* to begin disseminating the episodes.

Psychology Today – “How The Adjustment Bureau Threatens Free Will” by David Kyle Johnson, Ph.D., March 8, 2011.

New Scientist – COVER STORY – Free Will: The Illusion we can’t live without “The Free Will Delusion” by Dan Jones, April 16-22, 2011.

The Atlantic – “The Brain on Trial” by David Eagleman, July/August 2011.

The Huffington Post – “The Conspiracy Against Free Will” by Paul Pardi, August 3, 2011.

**The Myth of Free Will Hits
Live Call-In Manhattan TV on MNN**

September 23, 2011 – The goal of busting the myth of free will among the public got a huge boost in 2011 when my Meetup’s group member, Enel, informed me that he had recently begun training to produce a cable television series in midtown Manhattan, where he resides. Enel quickly appreciated the significance of my plan to bust the myth of free will by creating a public buzz. He also fully understood the wide reach our message would gain through Manhattan’s public access TV station, MNN, and by being listed on Time-Warner’s on-screen TV channel guide where it would be seen millions of times by viewers while searching for shows to watch through their cable service. After airing two pre-recorded episodes in the spring of 2011 with Enel’s friend Gene, and two guys Enel met at the MNN training, Big Rob and Frank, Enel’s live call-in TV show, *Myth of Free Will* began airing in preview on September 23rd, 2011 with me as the associate producer and co-host.

USA Today – “Why you don’t really have free will by Jerry Coyne, January 1, 2012.

On December 2, 2011, I published the first edition of this book as *Exploring the Illusion of Free Will: Eighteen episodes from the world’s first television series about the causal, unconscious nature of human will*.

On January 18, 2012, The MNN show *Myth of Free Will* (now titled *No Free Will*) ‘officially’ premiered.

Psychology Today – “The True Meaning of Freedom” by Alex Lickerman, M.D. January 22, 2012.

Waikato Times (New Zealand) – “Free will is a figment of our imaginations” by Joe Bennett, February 5, 2012.

Los Angeles Times – “Book reviews: ‘Free Will,’ ‘Religion for Atheists’” by Richard Rayner, April 08, 2012.

The Daily Caller – “Do People Have Free Will” by Matt Cocker, April 9, 2012.

Psychology Today – “Free Will Is an Illusion, So What?” by Raj Raghunathan, Ph.D., May 8, 2012.

The New York Times Sunday Review – “The Amygdala Made Me Do It” by James Atlas May, 12, 2012.

Psychology Today – “Your Chaotic Mind” by Joachim I. Krueger, Ph.D., May 25, 2012.

SB Nation – “Free Will, Responsibility, and the Penalty Box” by Megalodon, May 26, 2012.

Psychology Today – “Don’t Blame Yourself (or Others)” by John A. Johnson, Ph.D., May 28, 2012.

The Guardian – “The Question: Do footballers know what they’re doing?” by Jonathan Wilson, May 29, 2012.

The Guardian – “Guilty but not responsible?” by Rosiland English, May 29, 2012.

Scientific American Mind – COVER STORY “Who’s in Control? How Physics and Biology Dictate Your ‘Free’ Will” by Christof Koch, May/June 2012.

The Atlantic – “The Perfected Self” by David H. Freedman, June 2012.

The Huffington Post – “Free Will Is an Illusion” by Victor Stenger, June 1, 2012.

Psychology Today – “The Curse of Free Will” by Joachim I. Krueger, Ph.D., June 3, 2012.

Psychology Today – “Nietzsche on Self-Control” by Joachim I. Krueger, Ph.D., July 1, 2012.

The New York Times’ Sunday Book Review – “Have it Your Way; Free Will by Sam Harris” by Daniel Menaker, July 13, 2012.

Los Angeles Times – “Jerry Sandusky — a head case puzzle” by Robert M. Sapolsky, July 15, 2012.

Los Angeles Times – “Letters: Free will and the brain” by Laurent McReynolds, July 20, 2012.

The Washington Post – “The Philosophy of ‘You didn’t build that’” by Dylan Matthews, July 20, 2012.

Denial, or a Breather to Take it All in?

A strange thing happened in July of 2012. Extensive media coverage of the topic of free will very abruptly ended. Since then, few, if any, major magazines or newspapers have covered the topic. Perhaps the 2012 presidential elections and the holiday season that followed explain this. Perhaps the public began to deeply understand that free will is an illusion, and that absolutely nothing they thought, felt, said, or did was in any way truly up to them. Perhaps people didn’t like how this revolutionary new understanding made them feel, or how it could nevertheless greatly benefit their lives and transform our world. I end this book with the same quote by American philosopher John Searle (in 2010, the 13th most cited post-1900 philosopher in the world) with which I began the first 100 episodes of my television series. He exclaimed that for free will to be acknowledged as an illusion –

“would be a bigger revolution in our thinking than Einstein, or Copernicus, or Newton, or Galileo, or Darwin – it would alter our whole conception of our relation with the universe.”

Revolutions, especially those involving human thought, can be scary. The questions that now remain are how soon will major media publications and best-selling authors, perhaps now joined by

Hollywood studios, resume this pioneering exploration of the illusion of free will, and who else will emerge to take part in this historic leading of our world to a categorically new human consciousness?

Books Refuting Free Will and Fundamental Moral Responsibility

I've formatted the list in reverse chronological order by first publishing date to highlight the historical development of the refutations. While the list generally includes only books that unequivocally refute both free will and fundamental moral responsibility, I've included recent works like Michael S. Gazzaniga's *Who's in Charge?: Free Will and the Science of the Brain* and Richard Oerton's *The Nonsense of Free Will: Facing Up to a False Belief* that put forth convincing arguments for why free will is an illusion, yet maintain the logically inconsistent position that humans are nonetheless fundamentally, as distinct from pragmatically, morally responsible for their actions. Excluded are works like Ted Honderich's *How Free Are You: The Determinism Problem* that present compelling arguments and evidence against free will, but equivocate on definitively concluding that free will is a categorical impossibility.

1. June 1, 2013 - *Exploring the Illusion of Free Will and Moral Responsibility* edited by Gregg Caruso, Ph.D.. Note that while this collection of original essays is by scholars who deny, or merely express doubt, that free will exists, and some may maintain the position that humans are fundamentally, as distinct from pragmatically, morally responsible, it is included in the list because of its importance as a first-ever and historic academic compilation of

free will refutations. List of authors: Susan Blackmore, Gregg Caruso, Thomas W. Clark, Mark Hallett, John-Dylan Haynes and Michael Pauen, Ted Honderich, Neil Levy, Thomas Nadelhoffer and Daniela Goya Tocchetto, Shaun Nichols, Derk Pereboom, Susan Pockett, Maureen Sie, Saul Smilansky, Galen Strawson, Manuel Vargas, Benjamin Vilhauer, and Bruce Waller \$80.75

2. October 1, 2012 - *The Nonsense of Free Will: Facing up to a false belief* by Richard Oerton \$13.29

3. August 10, 2012 - *Brain Choices & Free Will: Getting To Know Ourselves Using Concepts That Are Not Well Understood Or Accepted* by Kip Koehler \$5.69

4. May 10, 2012 (Third Edition issued on January 17, 2013) - *Free Will: The Ultimate in Nonsense* by Enel Vale \$17.99

5. March 6, 2012 - *Free Will* by Sam Harris, Ph.D. \$9.99

6. February 23, 2012 - *Free Will and Consciousness; A Determinist Account of the Illusion of Free Will* by Gregg Caruso, Ph.D. \$56.47

7. December 2, 2011 (Kindle Second Edition issued on June 20, 2013) - *Exploring the Illusion of Free Will, Second Edition* by George Ortega \$.99

8. November 15, 2011 (Reissued on September 11, 2012) - *Who's in Charge?: Free Will and the Science of the Brain* by Michael S. Gazzaniga \$18.65

9. September 5, 2011 - *Hard Luck: How Luck Undermines Free Will and Moral Responsibility* by Neil Levy, Ph.D. \$47.51

- 10. November 3, 2010** - *Free Will?: An Investigation into whether We Have Free Will, or whether I was Always Going to Write this Book* by Jonathan M.S. Pearce \$15.00
- 11. 2007** (Revised Edition issued on August 11, 2010) - *The Myth of Free Will, Revised and Expanded Edition* edited by Cris Evatt \$9.95
- 12. June 1, 2005** - *Conscious Robots* by Paul Kwatz \$1.51 for the Kindle edition (bound edition is out of print)
- 13. August 11, 2003** - *The Illusion of Conscious Will* by Daniel M. Wegner, Ph.D. \$16.84
- 14. September 26, 2002** - *Free Will and Illusion* by Saul Smilansky, Ph.D. \$46.67
- 15. 2001** (Reissued on November 2, 2006) - *Living Without Free Will* by Derk Pereboom, Ph.D. \$48.82
- 16. May 23, 1991** - *The Implications of Determinism* by Roy Weatherford (out of print)
- 17. November 22, 1990** - *The Non-Reality of Free Will* by Richard Double \$104.50
- 18. July 1989** (Reissued October 22, 2012) - *The Spontaneous Self: Viable Alternatives to Free Will* by Paul E. Breer \$26.99
- 19. June 1989** - *Free Will* by Robert E. Brooks (out of print)
- 20. 1986** (Second edition issued on October 21, 2010) - *Freedom and Belief, Second Edition* by Galen Strawson, Ph.D. \$30.61

21. 1964 - *Human Freedom and Responsibility* by Frederick Vivian
(out of print)

22. 1919 (Reissued on May 15, 2011) - *Determinism or Free Will*
by Chapman Cohen \$36.86 (the Kindle edition is free)

23. 1839 - *Essay on the Freedom of the Will* (Reissued on May 6,
2005) by Arthur Schopenhauer \$6.60

24. 1754 (Reissued on November 10, 2010) - *Freedom of the Will*
by Jonathan Edwards \$.95 for the Kindle edition. (The bound
edition, published on September 1, 1997 is out of print)